Title	Link	Pubblication Class	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Year	Exc.Crit	Inc.Crit	Pubblication Venue	Vanue Name	IDQ	CDQ	FDQ	Digital Library	Reference
A Detection Method for Scarcity Defect of Blockchain Digital Asset based on Invariant Analysis	Link	PS	0.0	1.0						2022		2	Conference Proceeding or Workshop	International Conference on Software Quality, Reliability and Security (QRS)	0.8	0.50	0.65	Paper Forward Snowballing	SunEtAl2022b
A New Smart Contract Anomaly Detection Method by Fusing Opcode and Source Code Features for Blockchain Services	Link	PS	0.0	1.0						2023		2	Journal Article	IEEE Transactions on Network and Service Management	1.0	0.50	0.75	Google Scholar	DuanEtAl2023
A novel extended multimodal AI framework towards vulnerability detection in smart contracts	Link	PS	1.0	1.0						2023		2,3	Journal Article	Information Science	1.0	1	1.00	TU_Wien_CatalogPlus	JieEtAl2023
A Novel Machine Learning-Based Analysis Model for Smart Contract Vulnerability	Link	PS	1.0	1.0						2021		1	Journal Article	Security and Communication Networks	0.8	1.00	0.90	DL Snowballing	XuEtAl2021
A Novel Smart Contract Vulnerability Detection Method Based on Information Graph and Ensemble Learning	Link	PS	1.0	1.0						2022		1	Journal Article	Sensors	0.8	1.00	0.90	Google Scholar	L.ZhangEtAl2022a
A security framework for Ethereum smart contracts	Link	PS	1.0	1.0						2021		2	Journal Article	Computer Communications	1.0	1.00	1.00	Science Direct	VivarEtAl2021
A Solicitous Approach to Smart Contract Verification	Link	PS	0.3	1.0						2023		3	Journal Article	ACM Transactions on Privacy and Security	1.0	0.65	0.83	ACM DL	OtoniEtAl2023
A survey on smart contract vulnerabilities: Data sources, detection and repair	Link	Survey	0.0	1.0	0.6	0.3	0.0	0.0	1.0	2023		1	Journal Article	Information and Software Technology	1.0	0.58	0.79	Google Scholar	ChuEtAl2023
A systematic literature review of blockchain and smart contract development: Techniques, tools, and open challenges	Link	SLR	1.0	0.3	0.0	1.0	0.3	1.0	0.0	2021		1.2	Journal Article	Journal of Systems and Software	1.0	0.51	0.76	Science Direct	VaccaEtAl2021
A systematic literature review of undiscovered vulnerabilities and tools in smart contract technology	Link	SLR	1.0	1.0	1.0	1.0	0.6	0.0	1.0	2023		1,2,3	Journal Article	Journal of Intelligent Systems	0.8	0.93	0.87	Google Scholar	dZaazaaAndElBakkali2023b
AChecker: Statically Detecting Smart Contract Access Control Vulnerabilities	Link	PS	0.3	1.0						2023		2	Conference Proceeding or Workshop	ICSE '23: Proceedings of the 45th International Conference on Software Engineering	1.0	0.65	0.83	ACM DL	GhalebEtAl2023
An Empirical Evaluation of the Effectiveness of Smart Contract Verification Tools	Link	Survey	0.0	1.0	1.0	0.3	0.3	0.0	0.0	2021		2	Conference Proceeding or Workshop	Pacific Rim International Symposium on Dependable Computing	0.8	0.52	0.66	DL Snowballing	DiasEtAl2021
Aroc: An Automatic Repair Framework for On-Chain Smart Contracts	Link	PS	0.6	1.0						2022		3	Journal Article	IEEE Transactions on Software Engineering	1.0	0.80	0.90	TU_Wien_CatalogPlus	JinEtAl2022
ASSBert: Active and semi-supervised bert for smart contract vulnerability detection	Link	PS	0.6	1.0						2023		2	Journal Article	Journal of Information Security and Applications	1.0	0.80	0.90	Google Scholar	SunEtAl2023
AUTOMATED MUTATION ANALYSIS FOR SMART CONTRACT USING AMA TOOL WITH ENHANCED GA AND MACHINE LEARNING APPROACH	Link	PS	0.0	1.0						2023		2	Journal Article	Journal of Theoretical and Applied Information Technology	0.5	0.50	0.50	Google Scholar	SujeethaAndAkila2023
Automation and smart materials in detecting smart contracts vulnerabilities in Blockchain using deep learning	Link	PS	1.0	0.0						2021		3	Journal Article	Materials Today: Proceedings	0.8	0.50	0.65	Google Scholar	NarayanaAndSathiyamurthy2021
AutoMESC: Automatic Framework for Mining and Classifying Ethereum Smart Contract Vulnerabilities and Their Fixes	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	Euromicro Conference on Software Engineering and Advanced Applications	0.5	0.50	0.50	Google Scholar	SoudEtAl2023
Block-gram: Mining Knowledgeable Features for Smart Contract Vulnerability Detection	Link	PS	0.0	1.0						2023		2	Journal Article	Digital Communications and Networks	1.0	0.50	0.75	Science Direct	XieEtAl2023
CBGRU: A Detection Method of Smart Contract Vulnerability Based on a Hybrid Model	Link	PS	1.0	0.0						2022		2	Journal Article	Sensors	0.8	0.50	0.65	TU_Wien_CatalogPlus	L.ZhangEtAl2022c
CodeNet: Code-Targeted Convolutional Neural Network Architecture for Smart Contract Vulnerability Detection	Link	PS	1.0	0.0						2022		2	Journal Article	IEEE Access	1.0	0.50	0.75	TU_Wien_CatalogPlus	HwangEtAl2022
Combine sliced joint graph with graph neural networks for smart contract vulnerability detection	Link	PS	1.0	1.0						2023		2	Journal Article	Journal of Systems and Software	1.0	1.00	1.00	Science Direct	CaiEtAl2023
Combining Graph Neural Networks With Expert Knowledge for Smart Contract Vulnerability Detection	Link	PS	1.0	0.0						2023		2	Journal Article	IEEE Transactions on Knowledge and Data Engineering	1.0	0.50	0.75	TU_Wien_CatalogPlus	LiuEtAl2023a
ConFuzzius: A Data Dependency-Aware Hybrid Fuzzer for Smart Contracts	Link	PS	1.0	1.0						2021		2	Conference Proceeding or Workshop	IEEE European Symposium on Security and Privacy	0.2	1.00	0.60	DL Snowballing	TorresEtAl2021
Consolidation of Ground Truth Sets for Weakness Detection in Smart Contracts	Link	Survey	0.0	0.6	0.3	0.3	0.0	1.0	1.0	2023		3	Conference Proceeding or Workshop	Financial Cryptography and Data Security. FC 2023 International Workshops	1.0	0.53	0.78	Paper Forward Snowballing	diAngeloAndSalzer2023
Cross-Modality Mutual Learning for Enhancing Smart Contract Vulnerability Detection on Bytecode	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	WWW '23: Proceedings of the ACM Web Conference 2023	1.0	0.50	0.75	ACM DL	QianEtAl2023c
CrossFuzz: Cross-contract fuzzing for smart contract vulnerability detectionCrossFuzz: Cross-contract fuzzing for smart contract vulnerability detection	Link	PS	0.0	1.0						2024		2	Journal Article	Science of Computer Programming	0.5	0.50	0.50	Science Direct	YangEtAl2024
Data Flow-driven and Attention Mechanism-enabled Smart Contract Vulnerability Detection for Secure and Green Blockchain-based Service Networks	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	IEEE International Conference on Communications (ICC)	1.0	0.50	0.75	Google Scholar	CaoEtAl2023a
DeeSCVHunter: A Deep Learning-Based Framework for Smart Contract Vulnerability Detection	Link	PS	1.0	1.0						2021		2	Conference Proceeding or Workshop	International Joint Conference on Neural Networks	1.0	1.00	1.00	TU_Wien_CatalogPlus	YuEtAl2021
DefectChecker: Automated Smart Contract Defect Detection by Analyzing EVM Bytecode	Link	PS	1.0	1.0						2022		2	Journal Article	IEEE Transactions on Software Engineering	1.0	1.00	1.00	TU_Wien_CatalogPlus	ChenEtAl2021
Defining Smart Contract Defects on Ethereum	Link	Survey	0.0	1.0	1.0	0.3	0.0	0.0	0.5	2022		1	Journal Article	IEEE Transactions on software engineering	1.0	0.56	0.78	TU_Wien_CatalogPlus	ChenEtAl2022
Demystifying Exploitable Bugs in Smart Contracts	Link	Survey	0.0	1.0	0.6	1.0	0.6	0.0	1.0	2023		1	Conference Proceeding or Workshop	International Conference on Software Engineering	1.0	0.84	0.92	ACM DL	Z.ZhangEtAl2023
Demystifying Random Number in Ethereum Smart Contract: Taxonomy, Vulnerability Identification, and Attack Detection	Link	PS	0.3	1.0						2023		1	Journal Article	IEEE Transactions on Software Engineering	1.0	0.65	0.83	Google Scholar	QianEtAl2023b
Design and evaluation of highly accurate smart contract code vulnerability detection framework	Link	PS	0.0	1.0						2023		1.2	Journal Article	Data Mining and Knowledge Discovery	1.0	0.50	0.75	Google Scholar	JeonEtAl2023
Detect Defects of Solidity Smart Contract Based on the Knowledge Graph	Link	PS	0.0	1.0						2024		2	Journal Article	IEEE transactions on reliability	1.0	0.50	0.75	TU_Wien_CatalogPlus	HuEtAl2023b
Detecting code vulnerabilities by learning from large-scale open source repositories	Link	PS	0.3	1.0						2022		2,3	Journal Article	Journal of Information Security and Applications	1.0	0.65	0.83	DL Snowballing	RongzeXuEtAl2022
Detecting functional and security-related issues in smartcontracts: A systematic literature review	Link	SLR	1.0	0.3	0.3	1.0	1.0	1.0	0.5	2022		1.2	Journal Article	Software - Practice and Experience	0.8	0.73	0.76	Google Scholar	PiantadosiEtAl2022
Detecting Reentrancy Vulnerability in Smart Contracts using Graph Convolution Networks	Link	PS	0.0	1.0						2024		2,3	Conference Proceeding or Workshop	IEEE CCNC: IEEE Consumer Communications and Networking Conference	0.8	0.50	0.65	DL Snowballing	LakadawalaEtAl2024
Detection of Vulnerabilities of Blockchain Smart Contracts	Link	Survey	0.0	0.6	0.6	1.0	0.3	0.0	1.0	2023		2	Journal Article	IEEE internet of things journal	1.0	0.70	0.85	TU_Wien_CatalogPlus	DaojingHeEtAl2023
DL4SC: a novel deep learning-based vulnerability detection framework for smart contracts	Link	PS	0.0	1.0						2024		2,3	Journal Article	ASE	1.00	0.50	0.75	DL Snowballing	LiuEtAl2024
Dynamic Vulnerability Detection on Smart Contracts Using Machine Learning	Link	PS	1.0	0.0						2021		2	Conference Proceeding or Workshop	EASE	1.0	0.50	0.75	ACM DL	EshghieEtAl2021
EDIT: A data inspection tool for smart contracts temporal behavior modeling and prediction	Link	PS	0.0	1.0						2024		2	Journal Article	Future Generation Computer Systems	1.0	0.50	0.75	Google Scholar	DeSalveEtAl2024
Effectively Generating Vulnerable Transaction Sequences in Smart Contracts with Reinforcement Learning-guided Fuzzing	Link	PS	1.0	1.0						2022		2,3	Conference Proceeding or Workshop	ASE	1.0	1	1.00	ACM DL	JianzhongSuEtAl2022
Effuzz: Efficient fuzzing by directed search for smart contractsEffuzz: Efficient fuzzing by directed search for smart contracts	Link	PS	0.0	1.0						2024		2	Journal Article	Information and Software Technology	1.0	0.50	0.75	Science Direct	JiEtAl2023
Elysium: Context-Aware Bytecode-Level Patching to Automatically Heal Vulnerable Smart Contracts	Link	PS	1.0	1.0						2022		3	Conference Proceeding or Workshop	RAID '22: Proceedings of the 25th International Symposium on Research in Attacks, Intrusions and Defenses	0.8	1.00	0.90	ACM DL	TorresEtAl2022
Empirical Review of Smart Contract and DeFi Security: Vulnerability Detection and Automated Repair	Link	Survey	0.0	1.0	0.6	1.0	1.0	1.0	1.0	2023		1.3	Arxiv Paper or Preprint		0.2	0.93	0.57	Google Scholar	QianEtAl2023a
Enhancing Ethereum smart-contracts static analysis by computing a precise Control-Flow Graph of Ethereum bytecode	Link	PS	0.0	1.0						2023		1	Journal Article	Journal of Systems and Software	1.0	0.50	0.75	Science Direct	PasquaEtAl2023
Enhancing Smart-Contract Security through Machine Learning: A Survey of Approaches and Techniques	Link	Survey	0.0	0.6	0.3	0.6	0.6	0.0	1.0	2023		1	Journal Article	Electronics	0.8	0.62	0.71	Google Scholar	JiangEtAl2023
ESCORT: Ethereum Smart COntRacTs Vulnerability Detection using Deep Neural Network and Transfer Learning	Link	PS	1.0	1.0						2021		2	Arxiv Paper or Preprint		0.2	1.00	0.60	Google Scholar	LutzEtAl2021
eTainter: detecting gas-related vulnerabilities in smart contracts	Link	PS	1.0	1.0						2022		2	Conference Proceeding or Workshop	ISSTA 2022: Proceedings of the 31st ACM SIGSOFT International Symposium on Software Testing and Analysis	1.0	1.00	1.00	ACM DL	GhalebEtAl2022
Eth2Vec: Learning Contract-Wide Code Representations for Vulnerability Detection on Ethereum Smart Contracts	Link	PS	1.0	1.0						2021		2	Conference Proceeding or Workshop	International Symposium on Blockchain and Secure Critical Infrastructure	0.4	1.00	0.70	ACM DL	AshizawaEtAl2021
Ethchecker: a context-guided fuzzing for smart contracts	Link	PS	0.0	1.0						2024		1.2	Journal Article	Journal of Supercomputing	0.8	0.5	0.65	DL Snowballing	HanEtAl2024
Ethereum Smart Contract Analysis Tools: A Systematic Review	Link	SLR	1.0	1.0	0.6	0.3	0.0	0.0	0.5	2022		2	Journal Article	IEEE Access	1.0	0.57	0.78	TU_Wien_CatalogPlus	KushwahaEtAl2022b
EtherFuzz: Mutation Fuzzing Smart Contracts for TOD Vulnerability Detection	Link	PS	0.3	1.0						2022		2	Journal Article	Wireless communications and mobile computing	0.5	0.65	0.58	TU_Wien_CatalogPlus	WangEtAl2022
EtherGIS: A Vulnerability Detection Framework for Ethereum Smart Contracts Based on Graph Learning Features	Link	PS	1.0	1.0						2022		2,3	Conference Proceeding or Workshop	COMPSAC	1.0	1	1.00	DL Snowballing	ZengEtAl2022
EtherProv: Provenance-Aware Detection, Analysis, and Mitigation of Ethereum Smart Contract Security Issues	Link	PS	0.6	1.0						2022		1	Conference Proceeding or Workshop	IEEE International Conference on Blockchain	0.2	0.80	0.50	Google Scholar	LinoyEtAl2022
EtherSolve: Computing an Accurate Control-Flow Graph from Ethereum Bytecode	Link	PS	1.0	1.0						2021		2	Conference Proceeding or Workshop	IEEE/ACM International Conference on Program Comprehension	0.5	1.00	0.75	DL Snowballing	ControEtAl2021
EthVer: Formal Verification of Randomized Ethereum Smart Contracts	Link	PS	0.0	1.0						2021		2	Conference Proceeding or Workshop	Financial Cryptography and Data Security	1.0	0.50	0.75	TU_Wien_CatalogPlus	Mazurek2021
Evolution of automated weakness detection in Ethereum bytecode: a comprehensive study	Link	Survey	0.0	1.0	0.3	0.6	1.0	1.0	1.0	2024		2.3	Journal Article	Empirical Software Engineering	1.0	0.82	0.85	Paper Forward Snowballing	diAngeloEtAl2024
Gas gauge: A security analysis tool for smart contract out-of-gas vulnerabilities	Link	PS	1.0	1.0						2021		2,3	Arxiv Paper or Preprint	Cryptography and Security	0.2	1	0.60	DL Snowballing	NassirzadehEtAl2021
GraBit: A Sequential Model-Based Framework for Smart Contract Vulnerability Detection	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	2023 IEEE 34th International Symposium on Software Reliability Engineering (ISSRE)	1.0	0.50	0.75	TU_Wien_CatalogPlus	ZhuEtAl2023
GraphSA: Smart Contract Vulnerability Detection Combining Graph Neural Networks and Static Analysis	Link	PS	0.0	1.0						2023		2	Book Section	IOS Press	1.0	0.50	0.75	Google Scholar	LongHeEtAl2023
GRATDet: Smart Contract Vulnerability Detector Based on Graph Representation and Transformer	Link	PS	0.0	1.0						2023		2	Journal Article	Computers, Materials & Continua	0.8	0.50	0.65	Google Scholar	GongEtAl2023
HGAT: smart contract vulnerability detection method based on hierarchical graph attention network	Link	PS	0.0	1.0						2023		2	Journal Article	Journal of Cloud Computing	0.8	0.50	0.65	TU_Wien_CatalogPlus	MaEtAl2023
Hunting Vulnerable Smart Contracts via Graph Embedding Based Bytecode Matching	Link	PS	1.0	0.0						2021		2	Journal Article	IEEE transactions on information forensics and security	1.0	0.50	0.75	TU_Wien_CatalogPlus	HuangEtAl2021
Improvement and Optimization of Vulnerability Detection Methods for Ethernet Smart Contracts	Link	PS	0.0	1.0						2023		2	Journal Article	IEEE Access	1.0	0.50	0.75	Google Scholar	YangEtAl2023
ItyFuzz: Snapshot-Based Fuzzer for Smart Contract	Link	PS	0.6	1.0						2023		2.3	Conference Proceeding or Workshop	ISSTA 2023: Proceedings of the 32nd ACM SIGSOFT International Symposium on Software Testing and Analysis	1	0.8	0.90	Conferences	ShouEtAl2023
M-A-R: a Dynamic Symbol Execution Detection Method for Smart Contract Reentry Vulnerability	Link	PS	0.0	1.0						2021		2	Journal Article	Blockchain and Trustworthy Systems	0.5	0.50	0.50	TU_Wien_CatalogPlus	Hong-NingEtAl2021
MagicMirror: Towards High-Coverage Fuzzing of Smart Contracts	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	International Conference on Automated Software Engineering (ASE)	1.0	0.50	0.75	Conferences	FengEtAl2023
MANDO-GURU: vulnerability detection for smart contract source code by heterogeneous graph embeddings	Link	PS	0.0	1.0						2022		2	Conference Proceeding or Workshop	ESEC/FSE 2022: Proceedings of the 30th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering	1.0	0.50	0.75	Conferences	NguyenEtAl2022
MANDO-HGT: Heterogeneous Graph Transformers for Smart Contract Vulnerability Detection	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	IEEE/ACM 20th International Conference on Mining Software Repositories (MSR)	1.0	0.50	0.75	TU_Wien_CatalogPlus	NguyenEtAl2023
MSmart: Smart Contract Vulnerability Analysis and Improved Strategies Based on Smartcheck	Link	PS	0.0	1.0						2023		2	Journal Article	Applied Science	0.5	0.50	0.50	Google Scholar	FeiEtAl2023
Multi-model Smart Contract Vulnerability Detection Based on BiGRU	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	International Conference on Neural Information Processing	1.0	0.50	0.75	DL Snowballing	SongEtAl2023
Mutation testing for integer overflow in ethereum smart contracts	Link	PS	1.0	0.0						2022		1	Journal Article	Tsinghua science and technology	1.0	0.50	0.75	TU_Wien_CatalogPlus	SunEtAl2022a
Park: accelerating smart contract vulnerability detection via parallel-fork symbolic execution	Link	PS	0.0	1.0						2022		2	Conference Proceeding or Workshop	ISSTA 2022: Proceedings of the 31st ACM SIGSOFT International Symposium on Software Testing and Analysis	1.0	0.50	0.75	ACM DL	ZhengEtAl2022
Peculiar: Smart contract vulnerability detection based on crucial data flow graph and pre-training techniques	Link	PS	1.0	1.0						2021		2,3	Conference Proceeding or Workshop	ISSRE	1.0	1	1.00	DL Snowballing	WuHEtAl2021
Pre-deployment Analysis of Smart Contracts - A Survey	Link	Survey	0.0	1.0	1.0	1.0	0.0	0.0	1.0	2023			Arxiv Paper or Preprint		0.2	0.80	0.52	Paper Forward Snowballing	MunirAndTaha2023
PSCVFinder: A Prompt-Tuning Based Framework for Smart Contract Vulnerability Detection	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	2023 IEEE 34th International Symposium on Software Reliability Engineering (ISSRE)	1.0	0.50	0.75	TU_Wien_CatalogPlus	L.YuEtAl2023
ReDefender: A Tool for Detecting Reentrancy Vulnerabilities in Smart Contracts Effectively	Link	PS	1.0	1.0						2021		1.2	Conference Proceeding or Workshop	IEEE International Conference on Software Quality, Reliability and Security (QRS)	0.4	1.00	0.70	DL Snowballing	PanEtAl2021
ReDetect: Reentrancy Vulnerability Detection in Smart Contracts with High Accuracy	Link	PS	0.3	1.0						2021		1.2	Conference Proceeding or Workshop	International Conference on Mobile Ad-hoc and Sensor Networks, MSN	0.4	0.65	0.53	DL Snowballing	RutaoYuEtAl2021
Reentrancy Vulnerability Detection and Localization: A Deep Learning Based Two-phase Approach	Link	PS	1.0	1.0						2022		1	Conference Proceeding or Workshop	International Conference on Automated Software Engineering (ASE)	1.0	1.00	1.00	Conferences	Z.ZhangEtAl2022
ReSuMo: a regression strategy and tool for mutation testing of solidity smart contracts	Link	PS	0.0	1.0						2023		2	Journal Article	Software Quality Journal	0.5	0.50	0.50	Google Scholar	BarboniEtAl2023
Rethinking Smart Contract Fuzzing: Fuzzing With Invocation Ordering and Important Branch Revisiting	Link	PS	1.0	1.0						2023		1	Journal Article	IEEE transactions on information forensics and security	1.0	1.00	1.00	TU_Wien_CatalogPlus	LiuEtAl2023b
SAILFISH: Vetting Smart Contract State-Inconsistency Bugs in Seconds	Link	PS	1.0	1.0						2022		1	Conference Proceeding or Workshop	IEEE Symposium on Security and Privacy	1.0	1.00	1.00	TU_Wien_CatalogPlus	BoseEtAl2021
SCcheck: A Novel Graph-driven and Attention-enabled Smart Contract Vulnerability Detection Framework for Web 3.0 Ecosystem	Link	PS	0.0	1.0						2023		2	Journal Article	IEEE transactions on network science and engineering	1.0	0.50	0.75	TU_Wien_CatalogPlus	CaoEtAl2023b
SCGRU: A Model for Ethereum Smart Contract Vulnerability Detection Combining CNN and BiGRU-Attention	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	IEEE International Conference on Signal and Image Processing (ICSIP)	0.5	0.50	0.50	Google Scholar	LiangAndZhai2023
SCStudio: A Secure and Efficient Integrated Development Environment for Smart Contracts	Link	PS	0.6	1.0						2021		2.3	Conference Proceeding or Workshop	ISSTA 2021: Proceedings of the 30th ACM SIGSOFT International Symposium on Software Testing and Analysis	1	0.8	0.90	Conferences	MengRenEtAl2021
Security Risks and Best Practices for Blockchain and Smart Contracts: A Systematic Literature Review	Link	SLR	1.0	0.6	0.6	0.0	0.0	0.0	1.0	2023		1	Conference Proceeding or Workshop	International Conference on Information Management and Technology (ICIMTech)	1.0	0.53	0.77	Google Scholar	YuliantoEtAl2023
SESCon: Secure Ethereum Smart Contracts by Vulnerable Patterns' Detection	Link	PS	0.0	1.0						2021		1.2	Journal Article	Security and communication networks	0.8	0.50	0.65	TU_Wien_CatalogPlus	AliEtAl2021
sFuzz2.0: Storage-access pattern guided smart contract fuzzing	Link	PS	0.0	1.0						2023		2	Journal Article	Journal of software : evolution and process	0.8	0.50	0.65	TU_Wien_CatalogPlus	WangEtAl2023
SGUARD: Towards Fixing Vulnerable Smart Contracts Automatically	Link	PS	1.0	1.0						2021		3	Conference Proceeding or Workshop	IEEE Symposium on Security and Privacy	1.0	1.00	1.00	TU_Wien_CatalogPlus	NguyenEtAl2021
Siguard: Detecting Signature-Related Vulnerabilities in Smart Contracts	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	ICSE '23: Proceedings of the 45th International Conference on Software Engineering: Companion Proceedings	1.0	0.50	0.75	ACM DL	J.ZhangEtAl2023
Smart Contract and DeFi Security Tools: Do They Meet the Needs of Practitioners?	Link	Survey	0.0	1.0	0.6	0.3	0.6	0.0	1.0	2024		1	Conference Proceeding or Workshop	IEEE/ACM International Conference on Software Engineering	1.0	0.70	0.85	Google Scholar	ChaliasosEtAl2024
Smart Contract Vulnerability Detection Based on Multi-Scale Encoders	Link	PS	0.0	1.0						2024		1.2	Journal Article	Electronics	0.8	0.50	0.65	TU_Wien_CatalogPlus	GuoEtAl2024
Smart contract vulnerability detection combined with multi-objective detectionSmart contract vulnerability detection combined with multi-objective detection	Link	PS	1.0	1.0						2022		2	Journal Article	Computer Networks	1.0	1.00	1.00	Science Direct	L.ZhangEtAl2022
Smart Contract Vulnerability Detection Model Based on Multi-Task Learning	Link	PS	1.0	0.0						2022		2	Journal Article	Sensors	0.8	0.50	0.65	DL Snowballing	HuangEtAl2022
Smart Contract Vulnerability Detection: From Pure Neural Network to Interpretable Graph Feature and Expert Pattern Fusion	Link	PS	1.0	1.0						2021		1.2	Conference Proceeding or Workshop	IJCAI	1.0	1	1.00	DL Snowballing	LiuZEtAl2021
Smart Contracts Security Threats and Solutions	Link	SLR	1.0	0.6	1.0	0.0	0.0	0.0	0.5	2022		1	Journal Article	International Journal of Information Technology and Web Engineering	0.5	0.52	0.51	Google Scholar	MahugnonAndJules2022
SmartBugs 2.0: An Execution Framework for Weakness Detection in Ethereum Smart Contracts	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	2023 38th IEEE/ACM International Conference on Automated Software Engineering (ASE)	1.0	0.50	0.75	TU_Wien_CatalogPlus	diAngeloEtAl2023
SmartDagger : A Bytecode-based Static Analysis Approach for Detecting Cross-contract Vulnerability	Link	PS	1.0	1.0						2022		2	Conference Proceeding or Workshop	International Conference on Automated Software Engineering (ASE)	1.0	1.00	1.00	Conferences	LiaoEtAl2022
SMARTEST: Effectively Hunting Vulnerable Transaction Sequences in Smart Contracts through Language Model-Guided Symbolic Execution	Link	PS	1.0	1.0						2021		2,3	Conference Proceeding or Workshop	Security Symposium	1.0	1	1.00	DL Snowballing	SunbeomSoEtAl2021
SmartFast: an accurate and robust formal analysis tool for Ethereum smart contracts	Link	PS	0.3	1.0						2022		2	Journal Article	Empirical Software Engineering	1.0	0.65	0.83	Google Scholar	LiEtAl2022
SmartGift: Learning to Generate Practical Inputs for Testing Smart Contracts	Link	PS	0.6	1.0						2021		2	Conference Proceeding or Workshop	International Conference on Software Maintenance	1.0	0.80	0.90	DL Snowballing	ZhouEtAl2021
SmartGraph: Static Analysis Tool for Solidity Smart Contracts	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	Computational Science and Its Applications	0.5	0.50	0.50	DL Snowballing	ZhukovAndKorkhov2023
SMARTIAN : Enhancing Smart Contract Fuzzing with Static and Dynamic Data-Flow Analyses	Link	PS	1.0	1.0						2021		2	Conference Proceeding or Workshop	International Conference on Automated Software Engineering (ASE)	1.0	1.00	1.00	Conferences	ChoiEtAl2021
SmartScan: An approach to detect Denial of Service Vulnerability in Ethereum Smart Contracts	Link	PS	1.0	1.0						2021		1.2	Conference Proceeding or Workshop	IEEE/ACM International Workshop on Emerging Trends in Software Engineering for Blockchain (WETSEB)	0.4	1	0.70	DL Snowballing	SamreenAndAlalfi2021
SmartState: Detecting State-Reverting Vulnerabilities in Smart Contracts via Fine-Grained State-Dependency Analysis	Link	PS	0.0	1.0						2023		2	Conference Proceeding or Workshop	ISSTA 2023: Proceedings of the 32nd ACM SIGSOFT International Symposium on Software Testing and Analysis	1.0	0.50	0.75	ACM DL	LiaoEtAl2023
SolGuard: Preventing external call issues in smart contract-based multi-agent robotic systems	Link	PS	0.0	1.0						2021		2	Journal Article	Information Sciences	1.0	0.50	0.75	Science Direct	PraitheeshanEtAl2021
SoliTester: Detecting exploitable external-risky vulnerability in smart contracts using contract account triggering method	Link	PS	0.0	1.0						2023		2	Journal Article	Journal of software : evolution and process	0.8	0.50	0.65	TU_Wien_CatalogPlus	HuEtAl2023a
SPCBIG-EC: A Robust Serial Hybrid Model for Smart Contract Vulnerability Detection	Link	PS	1.0	0.0						2022		2	Journal Article	Sensors	0.8	0.50	0.65	TU_Wien_CatalogPlus	L.ZhangEtAl2022b
SuMo: A mutation testing approach and tool for the Ethereum blockchain	Link	PS	0.6	1.0						2022		2	Journal Article	Journal of Systems and Software	1.0	0.80	0.90	Google Scholar	BarboniEtAl2022
SuperDetector: A Framework for Performance Detection on Vulnerabilities of Smart Contracts	Link	PS	0.0	1.0						2022		2	Conference Proceeding or Workshop	Journal of physics. Conference series, 2022	0.5	0.50	0.50	TU_Wien_CatalogPlus	DaiEtAl2022
Survey on Quality Assurance of Smart Contracts	Link	Survey	0.0	1.0	0.6	0.6	0.6	1.0	1.0	2023		1	Arxiv Paper or Preprint		0.2	0.80	0.51	Paper Forward Snowballing	WeiEtAl2023
SVScanner: Detecting smart contract vulnerabilities via deep semantic extractionSVScanner: Detecting smart contract vulnerabilities via deep semantic extraction	Link	PS	0.3	1.0						2023		2	Journal Article	Journal of Information Security and Applications	1.0	0.65	0.83	Science Direct	H.ZhangEtAl2023
SynTest-solidity: automated test case generation and fuzzing for smart contracts	Link	PS	0.6	1.0						2022		2.3	Conference Proceeding or Workshop	ICSE '22: Proceedings of the ACM/IEEE 44th International Conference on Software Engineering: Companion Proceedings	1.0	0.80	0.90	ACM DL	OlsthoornEtAl2022
Systematic Review of Ethereum Smart Contract Security Vulnerabilities, Analysis Methods and Tools	Link	SLR	1.0	1.0	1.0	1.0	1.0	1.0	0.0	2021		1,2,3	Thesis or Seminar Paper	PhD Thesis	0.2	0.86	0.53	Google Scholar	Rameder2021
Systematic Review of Security Vulnerabilities in Ethereum Blockchain Smart Contract	Link	SLR	1.0	0.6	0.6	1.0	0.3	0.0	0.0	2021		1	Journal Article	IEEE Access	1.0	0.58	0.79	TU_Wien_CatalogPlus	KushwahaEtAl2022a
The Eye of Horus: Spotting and Analyzing Attacks on Ethereum Smart Contracts	Link	PS	1.0	1.0						2021		1.2	Conference Proceeding or Workshop	International Conference on Financial Cryptography and Data Security	0.8	1	0.90	DL Snowballing	TorresEtAl2021b
The State of Ethereum Smart Contracts Security: Vulnerabilities, Countermeasures, and Tool Support	Link	Survey	0.0	1.0	1.0	0.6	0.6	1.0	0.5	2022		1	Journal Article	Journal of Cybersecurity and Privacy	0.5	0.78	0.64	Google Scholar	ZhouEtAl2022
Tips: towards automating patch suggestion for vulnerable smart contracts	Link	PS	0.0	1.0						2023		3	Journal Article	Automated Software Engineering	0.8	0.50	0.65	TU_Wien_CatalogPlus	ChenEtAl2023
Toward Vulnerability Detection for Ethereum Smart Contracts Using Graph-Matching Network	Link	PS	0.3	1.0						2022		1	Journal Article	Future Internet	0.8	0.65	0.73	TU_Wien_CatalogPlus	Y.ZhangEtAl2022
Towards the Assessment and the Improvement of Smart Contract Security	Link	Survey	0.0	1.0	1.0	1.0	1.0	0.0	0.5	2022		1	Thesis or Seminar Paper	Thesis	0.2	0.90	0.55	Google Scholar	Staderini2022
TxMirror: When the Dynamic EVM Stack Meets Transactions for Smart Contract Vulnerability Detection	Link	PS	0.0	1.0						2023		2	Journal Article	Symmetry	0.8	0.50	0.65	TU_Wien_CatalogPlus	R.YuEtAl2023
Unknown Threats Detection Methods of Smart Contracts	Link	PS	0.0	1.0						2024		1.2	Journal Article	IEEE Internet of Things Journal	1.0	0.50	0.75	TU_Wien_CatalogPlus	HeEtAl2024
Unveiling the Landscape of Smart Contract Vulnerabilities: A Detailed Examination and Codification of Vulnerabilities in Prominent Blockchains	Link	Survey	0.0	1.0	1.0	0.0	0.0	1.0	1.0	2023		1	Journal Article	International Journal of Computer Networks & Communications (IJCNC)	0.5	0.67	0.58	Google Scholar	dZaazaaAndElBakkali2023a
Unveiling Vulnerable Smart Contracts: Toward Profiling Vulnerable Smart Contracts using Genetic Algorithm and Generating Benchmark Dataset	Link	PS	0.0	1.0						2024		2	Arxiv Paper or Preprint	Blockchain: Research and Applications	1.0	0.50	0.80	Science Direct	HajiHosseinKhaniEtAl2024
VSCL: Automating Vulnerability Detection in Smart Contracts with Deep Learning	Link	PS	1.0	1.0						2021		2	Conference Proceeding or Workshop	IEEE International Conference on Blockchain and Cryptocurrency	0.4	1.00	0.70	DL Snowballing	MiEtAl2021
VulHunter: Hunting Vulnerable Smart Contracts at EVM Bytecode-Level via Multiple Instance Learning	Link	PS	0.0	1.0						2023		1.2	Journal Article	IEEE Transactions on Software Engineering	1.0	0.50	0.75	TU_Wien_CatalogPlus	LiEtAl2023
Vulnerability and Transaction Behavior Based Detection of Malicious Smart Contracts	Link	Survey	0.0	1.0	1.0	0.6	0.3	0.0	0.5	2022		2	Conference Proceeding or Workshop	Cyberspace Safety and Security	0.4	0.68	0.54	Google Scholar	AgarwalEtAl2022
Vulpedia: Detecting vulnerable ethereum smart contracts via abstracted vulnerability signatures	Link	PS	0.6	1.0						2022		2	Journal Article	Journal of Systems and Software	1.0	0.80	0.90	Science Direct	JiamingYeEtAl2022
WANA: Symbolic Execution of Wasm Bytecode for Extensible Smart Contract Vulnerability Detection	Link	PS	0.6	1.0						2021		1.2	Conference Proceeding or Workshop	IEEE International Conference on Software Quality, Reliability and Security	0.4	0.80	0.60	DL Snowballing	JiangEtAl2021
xFuzz: Machine Learning Guided Cross-Contract Fuzzing	Link	PS	1.0	1.0						2022		2,3	Arxiv Paper or Preprint	IEEE Transactions on Dependable and Secure Computing	0.2	1	0.60	DL Snowballing	XueEtAl2022
Improving Smart Contract Security with Contrastive Learning-based Vulnerability Detection	Link	PS	1	1						2024		3	Conference Proceeding or Workshop	ICSE24	1.00	1.00	1.00	ACM DL	chen2024improving
Are We There Yet? Unraveling the State-of-the-Art Smart Contract Fuzzers	Link	Survey	0	0.6	0.6	0.6	1	1	1	2024		2	Conference Proceeding or Workshop	ICSE24	1.00	0.80	0.90	ACM DL	wu2024we
Towards Finding Accounting Errors in Smart Contracts	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ICSE24	1.00	0.50	0.75	ACM DL	zhang2024towards
GPTScan: Detecting Logic Vulnerabilities in Smart Contracts by Combining GPT with Program Analysis	Link	PS	1	1						2024		3	Conference Proceeding or Workshop	ICSE24	1.00	1.00	1.00	ACM DL	sun2024gptscan
SCVHunter: Smart Contract Vulnerability Detection Based on Heterogeneous Graph Attention Network	Link	PS	1	1						2024		3	Conference Proceeding or Workshop	ICSE24	1.00	1.00	1.00	IEEE	luo2024scvhunter
Safeguarding DeFi Smart Contracts against Oracle Deviations	Link	PS	0.6	1						2024		3	Conference Proceeding or Workshop	ICSE24	1.00	0.80	0.90	ACM DL	deng2024safeguarding
Verifying Declarative Smart Contracts	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ICSE24	1.00	0.50	0.75	ACM DL	chen2024verifying
Uncover the Premeditated Attacks: Detecting Exploitable Reentrancy Vulnerabilities by Identifying Attacker Contracts	Link	PS	0.6	1						2024		3	Conference Proceeding or Workshop	ICSE24	1.00	0.80	0.90	Conferences	yang2024uncover
Skyeye: Detecting Imminent Attacks via Analyzing Adversarial Smart Contracts	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ASE24	1.00	0.50	0.75	ACM DL	wang2024skyeye
OpenTracer: A Dynamic Transaction Trace Analyzer for Smart Contract Invariant Generation and Beyond	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ASE24	1.00	0.50	0.75	ACM DL	chen2024opentracer
COBRA: Interaction-Aware Bytecode-Level Vulnerability Detector for Smart Contracts	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ASE24	1.00	0.50	0.75	ACM DL	li2024cobra
AdvSCanner: Generating Adversarial Smart Contracts to Exploit Reentrancy Vulnerabilities Using LLM and Static Analysis	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ASE24	1.00	0.50	0.75	ACM DL	wu2024advscanner
ContractTinker: LLM-Empowered Vulnerability Repair for Real-World Smart Contracts	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ASE24	1.00	0.50	0.75	ACM DL	wang2024contracttinker
HighGuard: Cross-Chain Business Logic Monitoring of Smart Contracts	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ASE24	1.00	0.50	0.75	ACM DL	eshghie2024highguard
Oracle-Guided Vulnerability Diversity and Exploit Synthesis of Smart Contracts Using LLMs	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ASE24	1.00	0.50	0.75	ACM DL	eshghie2024oracle
Demystifying Invariant Effectiveness for Securing Smart Contracts	Link	PS	0.3	1						2024		3	Conference Proceeding or Workshop	FSE24	1.00	0.70	0.83	ACM DL	chen2024demystifying
Static Application Security Testing (SAST) Tools for Smart Contracts: How Far Are We?	Link	Survey	0	1	1	0	0	1	1	2024		2.3	Conference Proceeding or Workshop	FSE24	1.00	0.67	0.83	ACM DL	li2024static
FunRedisp: A Function Redispatch Tool to Reduce Invocation Gas Fees in Solidity Smart Contracts	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ISSTA24	1.00	0.50	0.75	ACM DL	liu2024funredisp
FunRedisp: Reordering Function Dispatch in Smart Contract to Reduce Invocation Gas Fees	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ISSTA24	1.00	0.50	0.75	ACM DL	liu2024funredisp2
Identifying Smart Contract Security Issues in Code Snippets from Stack Overflow	Link	PS	0.3	1						2024		3	Conference Proceeding or Workshop	ISSTA24	1.00	0.70	0.83	ACM DL	chen2024identifying
Midas: Mining Profitable Exploits in On-Chain Smart Contracts via Feedback-Driven Fuzzing and Differential Analysis	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ISSTA24	1.00	0.50	0.75	ACM DL	ye2024midas
VeriSol-MCE: Verification-based condition coverage analysis of Smart Contracts using Model Checker Engines	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ICSE24	1.00	0.50	0.75	Conferences	godboley2024poster
Towards Effective Detection of Ponzi schemes on Ethereum with Contract Runtime Behavior Graph	Link	PS	0.6	1						2024		3	Journal Article	TOSEM24	1.00	0.80	0.90	Conferences	liang2024towards
When ChatGPT Meets Smart Contract Vulnerability Detection: How Far Are We?	Link	PS	1	0						2024		3	Journal Article	TOSEM24	1.00	0.50	0.75	ACM DL	chen2023chatgpt
Smart Contract Code Repair Recommendation based on Reinforcement Learning and Multi-metric Optimization	Link	PS	0.6	1						2024		3	Journal Article	TOSEM24	1.00	0.80	0.90	ACM DL	guo2024smart
FunFuzz: A Function-Oriented Fuzzer for Smart Contract Vulnerability Detection with High Effectiveness and Efficiency	Link	PS	0	1						2024		3	Journal Article	TOSEM24	1.00	0.50	0.75	ACM DL	ye2024funfuzz
Contractsentry: a static analysis tool for smart contract vulnerability detection	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ASE24	1.00	0.50	0.75	Conferences	wang2025contractsentry
OpenSCV: an open hierarchical taxonomy for smart contract vulnerabilities	Link	Survey	0	1	1	1	0	0	1	2024		2.3	Journal Article	EMSE	1.00	0.50	0.75	TU_Wien_CatalogPlus	vidal2024openscv
Enhancing Oyente: four new vulnerability detections for improved smart contract security analysis	Link	PS	0	1						2024		3	Journal Article	International Journal of Information Technology	1.00	0.50	0.75	Conferences	jj2024enhancing
EF⚡CF: High Performance Smart Contract Fuzzing for Exploit Generation	Link	PS	1	1						2024		3	Conference Proceeding or Workshop	Symposium on Security and Privacy	0.20	1.00	0.60	Conferences	rodler2023ef
Automated Invariant Generation for Solidity Smart Contracts	Link	PS	0.6	1						2024		3	Arxiv Paper or Preprint	ICSE24	0.20	0.80	0.50	Conferences	liu2024automated
Turn the Rudder: A Beacon of Reentrancy Detection for Smart Contracts on Ethereum	Link	Survey	0.0	0.6	0.3	0.3	0.6	1.0	1.0	2023		1,2	Conference Proceeding or Workshop	ICSE23	1.00	0.54	0.77	ACM DL	Zheng2023rudder
InvCon: A Dynamic Invariant Detector for Ethereum Smart Contracts	Link	PS	1.0	1						2022		3	Conference Proceeding or Workshop	ASE22	1.00	1.00	1.00	DL Snowballing	liu2022invcon
ESBMC-Solidity: An SMT-Based Model Checker for Solidity Smart Contracts	Link	PS	1	1						2022		3	Conference Proceeding or Workshop	ICSE22	1.00	1.00	1.00	ACM DL	song2022esbmc
Empirical evaluation of smart contract testing: what is the best choice?	Link	Survey	0.0	0.6	0.3	0.6	1.0	1.0	0.0	2021		2.3	Conference Proceeding or Workshop	ISSTA21	1.00	0.50	0.75	DL Snowballing	ren2021empirical
Revealing Hidden Threats: An Empirical Study of Library Misuse in Smart Contracts	Link	Survey	0.0	0.6	0.6	0.0	0.0	1.0	1.0	2024		2.3	Conference Proceeding or Workshop	ICSE24	1.00	0.53	0.77	ACM DL	Huang2024Revealing
PrettySmart: Detecting Permission Re-delegation Vulnerability for Token Behaviors in Smart Contracts	Link	PS	0.0	1.0						2024		3	Conference Proceeding or Workshop	ICSE24	1.00	0.50	0.75	Conferences	zhong2024prettysmart
DAppSCAN: Building Large-Scale Datasets for Smart Contract Weaknesses in DApp Projects	Link	Survey	0.0	0.6	0.6	0.3	0.6	1.0	1.0	2024		2.3	Journal Article	TSE	1.00	0.59	0.79	Conferences	zheng2024dappscan
SmartAxe: Detecting Cross-Chain Vulnerabilities in Bridge Smart Contracts via Fine-Grained Static Analysis	Link	PS	0.3	1						2024		3	Conference Proceeding or Workshop	FSE24	1.00	0.65	0.83	Conferences	liao2024smartaxe
Efficiently Detecting Reentrancy Vulnerabilities in Complex Smart Contracts	Link	PS	0.3	1						2024		3	Conference Proceeding or Workshop	FSE24	1.00	0.65	0.83	Conferences	wang2024efficiently
echidna-parade: A Tool for Diverse Multicore Smart Contract Fuzzing	Link	PS	0.3	1.0						2021		2.3	Conference Proceeding or Workshop	ISSTA21	1.00	0.70	0.83	DL Snowballing	groce2021echidna
Increasing Fuzz Testing Coverage for Smart Contracts with Dynamic Taint Analysis	Link	PS	0.6	1.0						2021		1.2	Conference Proceeding or Workshop	IEEE International Conference on Software Quality, Reliability and Security (QRS)	0.50	0.80	0.65	DL Snowballing	ji2021increasing
Finding Permission Bugs in Smart Contracts with Role Mining	Link	PS	1	1						2022		2,3	Conference Proceeding or Workshop	ISSTA 2022	1.00	1.00	1.00	ACM DL	liu2022finding
SigRec: Automatic Recovery of Function Signatures in Smart Contracts	Link	PS	1	1						2022		2,3	Journal Article	TSE22	1.00	1.00	1.00	DL Snowballing	chen2021sigrec
Gas Estimation and Optimization for Smart Contracts on Ethereum	Link	PS	1	1						2021		3	Conference Proceeding or Workshop	ASE21	1.00	1.00	1.00	ACM DL	li2021gas
Checking Smart Contracts With Structural Code Embedding	Link	PS	1.0	1.0						2021		2,3	Journal Article	TSE21	1.00	1.00	1.00	DL Snowballing	gao2020checking
ContractCheck: Checking Ethereum Smart Contracts in Fine-Grained Level	Link	PS	0	1						2024		2,3	Journal Article	TSE24	1.00	0.50	0.75	Conferences	wang2024contractcheck
SCAnoGenerator: Automatic Anomaly Injection for Ethereum Smart Contracts	Link	PS	0	1						2024		2,3	Journal Article	TSE24	1.00	0.50	0.75	Conferences	zhang2024scanogenerator
LENT-SSE: Leveraging Executed and Near Transactions for Speculative Symbolic Execution of Smart Contracts	Link	PS	0	1						2024		3	Conference Proceeding or Workshop	ISSTA24	1.00	0.50	0.75	ACM DL	zheng2024lent
CSAFuzzer: Fuzzing smart contracts combining with static analysis	Link	PS	0	1						2025		2,3	Journal Article	EMSE	1.00	0.50	0.75	Conferences	yang2025csafuzzer
sGuard+: Machine Learning Guided Rule-Based Automated Vulnerability Repair on Smart Contracts	Link	PS	0.6	1						2024		2,3	Journal Article	TOSEM24	1.00	0.80	0.90	Conferences	gao2024sguard
DFier: A directed vulnerability verifier for Ethereum smart contracts	Link	PS	0	1						2024		2,3	Journal Article	Journal of Network and Computer Applications	1.00	0.50	0.75	Conferences	wang2024dfier
Unveiling Smart Contracts Vulnerabilities: Toward Profiling Smart Contracts Vulnerabilities using Enhanced Genetic Algorithm and Generating Benchmark Dataset	Link	Survey	0	0.6	0.6	1	1	1	1	2024		2,3	Journal Article	Blockchain: Research and Applications	1.00	0.50	0.75	Science Direct	hajihosseinkhani2024unveiling
EVM-Shield: In-Contract State Access Control for Fast Vulnerability Detection and Prevention	Link	PS	0	1						2024		2,3	Journal Article	IEEE Transactions on Information Forensics and Security	1.00	0.50	0.75	IEEE	zhang2024evm
LLMSmartSec: Smart Contract Security Auditing with LLM and Annotated Control Flow Graph	Link	PS	0	1						2024		2,3	Conference Proceeding or Workshops	2024 IEEE International Conference on Blockchain (Blockchain)	0.50	0.50	0.50	IEEE	mothukuri2024llmsmartsec
ContractArmor: Attack Surface Generator for Smart Contracts	Link	PS	0.3	1						2024		2,3	Conference Proceeding or Workshops	Procedia computer science, 2024, Vol.231, p.8-15	0.80	0.65	0.73	TU_Wien_CatalogPlus	Ozdemir2024
An integrated deep learning model for Ethereum smart contract vulnerability detection	Link	PS	1	0						2024		2,3	Journal Article	International journal of information security, 2024-02, Vol.23 (1), p.557-575	0.80	0.50	0.65	TU_Wien_CatalogPlus	jain2024integrated
SafeCheck: Detecting smart contract vulnerabilities based on static program analysis methods	Link	PS	0	1						2024		2,3	Journal Article	Security and privacy, 2024-09, Vol.7 (5), p.n/a	0.80	0.50	0.65	TU_Wien_CatalogPlus	chen2024safecheck
ParSE: Efficient Detection of Smart Contract Vulnerabilities via Parallel and Simplified Symbolic Execution	Link	PS	0	1						2024		2,3	Conference Proceeding or Workshops	2024 IEEE/ACM 46th International Conference on Software Engineering: Companion Proceedings (ICSE-Companion)	1.00	0.50	0.75	IEEE	he2024parse
FFGDetector: Vulnerability Detection in Cross-Contract Feature Flow Graph Using GCN	Link	PS	0	1						2024		2,3	Conference Proceeding or Workshops	2024 IEEE International Symposium on Parallel and Distributed Processing with Applications (ISPA)	0.80	0.50	0.65	IEEE	liu2024ffgdetector
MuFuzz: Sequence-Aware Mutation and Seed Mask Guidance for Blockchain Smart Contract Fuzzing	Link	PS	0	1						2024		2,3	Conference Proceeding or Workshops	2024 IEEE 40th International Conference on Data Engineering (ICDE)	1.00	0.50	0.75	IEEE	qian2024mufuzz
MindTheDApp: A Toolchain for Complex Network-Driven Structural Analysis of Ethereum-Based Decentralized Applications	Link	PS	0.3	1						2024		2,3	Journal Article	IEEE Access	1.00	0.65	0.83	IEEE	ibba2024mindthedapp
Hunting DeFi Vulnerabilities via Context-Sensitive Concolic Verification	Link	PS	0	1						2024		2,3	Conference Proceeding or Workshops	2024 IEEE/ACM 46th International Conference on Software Engineering: Companion Proceedings (ICSE-Companion)	1.00	0.50	0.75	IEEE	ding2024hunting
SmartInv: Multimodal Learning for Smart Contract Invariant Inference	Link	PS	1	1						2024		2,3	Conference Proceeding or Workshops	2024 IEEE Symposium on Security and Privacy (SP)	1.00	1.00	1.00	IEEE	wang2024smartinv
Involuntary Transfer: A Vulnerability Pattern in Smart Contracts	Link	PS	0	1						2024		2,3	Journal Article	IEEE Access	1.00	0.50	0.75	IEEE	khan2024involuntary
SCVD-SA: A Smart Contract Vulnerability Detection Method Based on Hybrid Deep Learning Model and Self-attention Mechanism	Link	PS	0	1						2024		2,3	Conference Proceeding or Workshops	2024 IEEE International Conference on Software Analysis Evolution and Reengineering - Companion (SANER-C)	1.00	0.50	0.75	IEEE	wang2024scvd
SERNet-T: A Smart Contract Multi-label Vulnerability Detection Model Based on SE Attention and One-Dimensional Residual Network	Link	PS	0	1						2024		2,3	Conference Proceeding or Workshops	2024 IEEE International Conference on Cognitive Computing and Complex Data (ICCD)	0.80	0.50	0.65	IEEE	guo2024sernet
FEMD: Feature Enhancement-aided Multimodal Feature Fusion Approach for Smart Contract Vulnerability Detection	Link	PS	0	1						2024		2,3	Conference Proceeding or Workshops	2024 IEEE 30th International Conference on Parallel and Distributed Systems (ICPADS)	1.00	0.50	0.75	IEEE	li2024femd
Smart Contract: Tools and Challenges	Link	Survey	0	0.6	0.6	0.6	0.6	0	1	2024		2,3	Conference Proceeding or Workshops	2024 1st International Conference on Cognitive Green and Ubiquitous Computing (IC-CGU)	0.50	0.57	0.53	IEEE	mishra2024smart
Smart Contract Vulnerability Detection with Self-Ensemble Pre-Trained Language Models	Link	PS	0	1						2024		2,3	Conference Proceeding or Workshops	2024 International Conference on Computer Information and Telecommunication Systems (CITS)	0.50	0.50	0.50	IEEE	dai2024smart
A Systematic Review of the Blockchain Technology Security Challenges and Threats Classification	Link	SLR	1	0.6	0.6	0.3	0.3	0	1	2024		2,3	Conference Proceeding or Workshops	2024 6th International Conference on Blockchain Computing and Applications (BCCA)	0.80	0.63	0.72	IEEE	abubakar2024systematic
FELLMVP: An Ensemble LLM Framework for Classifying Smart Contract Vulnerabilities	Link	PS	0.3	1						2024		2,3	Conference Proceeding or Workshops	2024 IEEE International Conference on Blockchain (Blockchain)	0.50	0.65	0.58	IEEE	luo2024fellmvp
EvoFuzzer: An Evolutionary Fuzzer for Detecting Reentrancy Vulnerability in Smart Contracts	Link	PS	0	1						2024		2,3	Journal Article	IEEE Transactions on Network Science and Engineering	1.00	0.50	0.75	IEEE	li2024evofuzzer
The Sword of Damocles: Upgradeable Smart Contract in Ethereum	Link	Survey	0	0.6	0.6	0.3	0.6	0	1	2024		2,3	Conference Proceeding or Workshops	2024 IEEE/ACM 32nd International Conference on Program Comprehension (ICPC)	1.00	0.52	0.76	IEEE	huang2024sword
Blockchain Programming Languages Vulnerabilities and Error Mitigation Strategies	Link	Survey	0	1	0.6	0.3	0.3	0	1	2024		2,3	Conference Proceeding or Workshops	2024 11th International Conference on Electrical Electronic and Computing Engineering (IcETRAN)	0.50	0.53	0.52	IEEE	obradovic2024blockchain
DeFiRanger: Detecting DeFi Price Manipulation Attacks	Link	PS	0	1						2023		2,3	Journal Article	IEEE Transactions on Dependable and Secure Computing	1.00	0.50	0.75	IEEE	wu2023defiranger
SolOSphere: A Framework for Gas Optimization in Solidity Smart Contracts	Link	PS	0	1						2024		2,3	Conference Proceeding or Workshops	2024 IEEE International Conference on Software Analysis Evolution and Reengineering - Companion (SANER-C)	1.00	0.50	0.75	IEEE	khanzadeh2024solosphere
A Systematic Literature Review of Decentralized Applications in Web3: Identifying Challenges and Opportunities for Blockchain Developers	Link	SLR	1	0.6	0.6	0.3	0.6	0	1	2024		2,3	Conference Proceeding or Workshops	2024 IEEE International Conference on Big Data (BigData)	0.80	0.68	0.68	IEEE	faruk2024systematic
A comprehensive survey of smart contract security: State of the art and research directions	Link	Survey	0	0.6	0.6	1	1	0	1	2024		2,3	Journal Article	Journal of network and computer applications, 2024-06, Vol.226, p.103882, Article 103882	1.00	0.60	0.80	TU_Wien_CatalogPlus	wu2024comprehensive
SolGPT: A GPT-Based Static Vulnerability Detection Model for Enhancing Smart Contract Security	Link	PS	0.3	1						2024		2,3	Conference Proceeding or Workshops	Algorithms and Architectures for Parallel Processing, 2024, Vol.14490, p.42-62	0.80	0.65	0.73	TU_Wien_CatalogPlus	zeng2023solgpt
Unknown Threats Detection Methods of Smart Contracts	Link	PS	0.6	1						2024		2,3	Journal Article	IEEE internet of things journal, 2024-02, Vol.11 (3), p.1-1	1.00	0.80	0.90	TU_Wien_CatalogPlus	he2023unknown
A Survey on Security Analysis Methods of Smart Contracts	Link	Survey	0	0.6	0.6	0.3	0.6	0	1	2024		2,3	Journal Article	IEEE transactions on services computing, 2024-11, Vol.17 (6), p.4522-4539	1.00	0.52	0.52	TU_Wien_CatalogPlus	zhu2024survey
DeepFusion: Smart Contract Vulnerability Detection Via Deep Learning and Data Fusion	Link	PS	0	1						2024		2,3	Journal Article	IEEE transactions on reliability, 2024-10, p.1-15	1.00	0.50	0.75	TU_Wien_CatalogPlus	chu2024deepfusion
ReenSAT: Reentrancy Vulnerability Detection in Smart Contracts Using Semantic-Enhanced SAT Evaluation	Link	PS	0	1						2024		2,3	Journal Article	IEEE transactions on reliability, 2024-11, p.1-15	1.00	0.50	0.75	TU_Wien_CatalogPlus	he2024reensat
ContractGNN: Ethereum Smart Contract Vulnerability Detection Based on Vulnerability Sub-Graphs and Graph Neural Networks	Link	PS	0	1						2024		2,3	Journal Article	IEEE transactions on network science and engineering, 2024-11, Vol.11 (6), p.6382-6395	1.00	0.50	0.75	TU_Wien_CatalogPlus	wang2024contractgnn
SCcheck: A Novel Graph-Driven and Attention- Enabled Smart Contract Vulnerability Detection Framework for Web 3.0 Ecosystem	Link	PS	0.6	1						2024		2,3	Journal Article	IEEE transactions on network science and engineering, 2024-09, Vol.11 (5), p.4007-4019	1.00	0.80	0.90	TU_Wien_CatalogPlus	cao2023sccheck
Erinys: Efficient fuzzing by function invoke sequence generation for smart contracts	Link	PS	0	1						2024		2,3	Conference Proceeding or Workshops	Proceedings of the 2024 8th International Conference on Big Data and Internet of Things, 2024, p.236-241	0.50	0.50	0.50	TU_Wien_CatalogPlus	dong2024erinys
A comprehensive survey of smart contracts vulnerability detection tools: Techniques and methodologies	Link	SLR	1	0.6	0.6	1	1	0	1	2025		1,2,3	Journal Article	Journal of Network and Computer Applications	1	0.74	0.87	Science Direct	hejazi2025comprehensive
Beyond "Protected" and "Private": An Empirical Security Analysis of Custom Function Modifiers in Smart Contracts	Link	PS	1.0	1.0						2023		2.3	Conference Proceeding or Workshop	ISSTA23	1.0	1	1.00	ACM DL	fang2023beyond
Automated Vulnerability Injection in Solidity Smart Contracts: A Mutation-Based Approach for Benchmark Development	Link	PS	0	1						2025		2,3	Conference Proceeding or Workshop	EASE25	1	0.50	0.75	Google Scholar	iuliano2025automated
Ethereum Smart Contract Vulnerability Detection and Machine Learning-Driven Solutions: A Systematic Literature Review	Link	SLR	1	1.0	0.6	0.6	0.6	0	1	2024		1,2,3	Journal Article	Electronics (Basel), 2024-06, Vol.13 (12), p.2295	0.8	0.69	0.74	TU_Wien_CatalogPlus	kiani2024ethereum