

Article ID	Title	Year	Link	Abstract	Author Keywords	IC01 Paper	IC02 Paper	IC03 Focus	IC04 Text	IC05 The T	EC01 Papers	EC02 Any s	EC03 Any d	EC04 Studi	EC05 Papers	Includ or exclud	RQ1: What are the perceived advantages and disadvantages of developers using LLM-based tools for the implementation and coding phase of software development?	RQ2: What are the limitations and / or risks of using LLM-based tools in the implementation and coding phase of software development?	RQ3: Does the availability of LLM support influence developers' choice of programming languages?	Potential questions for survey:		
A01	The Art of Program	2024	https://www.sco	Programming has	code genera	✓	✓	□	✓	□	□	□	□	□	□	Exclude						
A02	Designing Asynchtr	2023	https://www.sco	Session types pro	Code Gener	✓	✓	□	✓	□	□	□	□	□	□	Exclude						
A03	Beyond Code: Eval	2024	https://www.sco	Code generation a	code genera	✓	✓	✓	□	✓	□	□	✓	□	□	Exclude						
A04	The robots are com	2022	https://www.sco	Recent advances i	Academic in	✓	✓	✓	□	✓	□	✓	□	□	□	Exclude						
A05	ColAdder: Manipul	2024	https://www.sco	This paper adopte	Code Gener	✓	✓	✓	✓	✓	□	□	□	□	□	Include	- Repeatedly switching between prompt ar - Experiencing cognitive overload caused i	- Linear prompt makes it challenging to externalize inte - Difficult to go back and forth between code and promt		- Do you feel like repeatedly switching between - Do you feel like it can be difficult to go back ar - In your opinion, does the linear layout of the p	- Do you feel like repeatedly switching i - How often do you have to re-explain y	
A06	CoSec: On-the-Fly	2024	https://www.sco	Large Language M	AI Safety; C	✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A07	On Codex Prompt f	2023	https://www.sco	The Object Constr	Code Gener	✓	✓	✓	✓	□	□	□	□	✓	□	Include		- Basic prompts in Codex resulted in a low validity scor - Enriching prompts with UML info increased validity of		- How much do you think that context helps LLM	- How much do you think that context h	
A08	An Empirical Study	2024	https://www.sco	Artificial Intelligenc	AIGC detect	✓	✓	✓	✓	□	□	□	✓	□	□	Exclude						
A09	From Misuse to Ma	2023	https://www.sco	Large Language M	API Misuse;	✓	✓	✓	✓	✓	□	□	□	□	□	Include		- Incomplete exception handling, incorrect exception ha - Incomplete exception handling is a common phenom - A limitation of ChatGPT is to generate versatile code t		- Which of these problems do you most often fir	- Which of these problems do you offer	
A10	Navigating the Pitfa	2024	https://www.sco	In recent years, lar	code explan	✓	✓	✓	✓	□	□	✓	□	□	□	Exclude						
A11	ACC Saturator: Aut	2024	https://www.sco	Automatic code op	Code Gener	✓	✓	✓	✓	□	□	□	□	□	□	Exclude						
A12	A3-CodGen: A Rep	2024	https://www.sco	LLM-based code g	Code gener	✓	✓	✓	□	□	□	□	□	✓	□	Exclude						
A13	Efficient Inference f	2024	https://www.sco	Many artificial intel	code genera	✓	✓	✓	✓	□	□	□	□	□	□	Exclude						
A14	GPT-3-Powered Ty	2023	https://www.sco	Type systems are i	Automated f	✓	✓	□	✓	✓	□	□	□	□	□	Exclude						
A15	Just another copy a	2024	https://www.sco	Sonatype's 2023 n	Code Gener	✓	✓	✓	✓	✓	□	□	□	□	□	Include		- Recommendation: Code produced by both LLM or hu - ChatGPT produced code containing 20% less CWE v		- Does LLM generated code introduce vulnerab - What software security practices are you appl - Do you have some software security practices	- Does LLM generated code introduce - Do you perform any security testing (i	
A16	Can ChatGPT supp	2024	https://www.sco	Large language rxv	Formal verifi	✓	✓	□	✓	✓	□	□	□	□	□	Exclude						
A17	A 2.41-μW/MHz, 43	2023	https://www.sco	While coarse-grain		✓	✓	□	✓	✓	□	□	□	□	✓	Exclude						
A18	LLMSecEval: A Dat	2023	https://www.sco	Large Language M	code securit	✓	✓	✓	□	□	□	□	□	□	□	Exclude						
A19	StructCoder: Struct	2024	https://www.sco	There has been a i	Additional K	✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A20	Goal Driven Code e	2023	https://www.sco	We are currently w	Code gener	✓	✓	□	✓	□	□	□	□	□	□	Exclude						
A21	DistillSeq: A Frame	2024	https://www.sco	Large Language M	Automated T	✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A22	NLZViz: natural lan	2022	https://www.sco	Recent developme	constraint; n	✓	✓	✓	✓	□	□	□	□	□	□	Exclude						
A23	OMPGBT: A Gener	2024	https://www.sco	Large language m	HPC; Large	✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A24	Exploring Human-C	2024	https://www.sco	Recent advancem	AI; artificial i	✓	✓	✓	✓	✓	□	✓	□	□	□	Exclude						
A25	Investigation and I	2024	https://www.sco	The field of FPGA	AI-HDLCode	✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A26	Grace: Language I	2023	https://www.sco	Developers spend	Associated e	✓	✓	✓	□	□	□	□	□	□	□	Exclude						
A27	Efficient Avoidance	2023	https://www.sco	Auto-completing c	code genera	✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A28	Conceptual model i	2023	https://www.sco	Large Language M	Code Gener	✓	✓	□	✓	✓	□	□	□	□	□	Exclude						
A29	Large language mo	2024	https://www.sco	We apply AI-assist	auto-parallel	✓	✓	✓	□	✓	□	□	□	□	□	Exclude						
A30	"It would work for m	2024	https://www.sco	While revolutionary	Generative A	✓	✓	✓	✓	✓	□	□	□	□	□	Include	- Learning about the constraints of AI form - No voting mechanism or discussion for L - Users are not able to see how or why the - Code generation tools increase productiv	Diverse use cases help developers to be aware of the Developers form strategies to minimize harm, by learn Beginner programmers rely on resources generated t		- Does automatic code generation increase you - Do you think that the lack of explicit resoning c	- Does automatic code generation incre	
A31	oneDNN Graph Co	2024	https://www.sco	With the rapid dew	Code Gener	✓	✓	□	✓	□	□	□	□	✓	□	Exclude						
A32	An ML-Style Modul	2024	https://www.sco	We propose MetaF	code genera	✓	✓	□	✓	□	□	□	□	□	□	Exclude						
A33	UML to code, and c	2022	https://www.sco	Due to benefits su	Code Gener	✓	✓	✓	✓	✓	□	□	□	✓	□	Exclude						
A34	Complete Stream F	2024	https://www.sco	Strymonas is a co	code genera	✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A35	Assessing the Secu	2024	https://www.sco	AI-powered code g	code genera	✓	✓	✓	✓	✓	□	□	□	□	□	Include		- The percentage of vulnerable code generated has, si - For one scenario of SQL injection, the vulnerability ra - Developers should apply automatic and manual secu		- Do you perform any security testing (automati	- Do you perform any security testing (i	
A36	AXI4MLIR: User-Dr	2024	https://www.sco	This paper address	AXI; Code G	✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A37	Rethinking AI code	2024	https://www.sco	Code generation h	Artificial Inte	✓	✓	✓	✓	✓	□	□	□	✓	□	Exclude						
A38	MDA-Based Approi	2023	https://www.sco	Blockchain smart c	code genera	✓	✓	✓	□	□	□	□	□	□	□	Exclude						
A39	Multi-target Backdo	2023	https://www.sco	Backdoor attacks f		✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A40	Autovesk: Automati	2023	https://www.sco	Leveraging the SII	Automatic v	✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A41	Translating Clinical	2023	https://www.sco	Smart contracts, d	Code gener	✓	✓	✓	□	✓	□	□	□	□	□	Exclude						
A42	"you're on a bicycle	2024	https://www.sco	AI code assistants; AI	code assi	✓	✓	✓	✓	✓	□	□	□	□	□	Include	- One benefit highlighted in the interviews - The developers also used assistants to c - Developers can focus on more complex t - Assistants can be used as a tool for enh - Used to help developers to find a starting - Code generated by LLMs is sometimes a - Versioning was also reported being a cha - The volume of code suggestions can son			- Does automatic code generation increase you - Does LLM generated code help you to find a s - Based on your experience, are LLMs able to g	- Does LLM generated code help you to - Based on your experience, are LLMs	
A43	An Empirical Comp	2024	https://www.sco	The rapid proliferat	ansible; cod	✓	✓	✓	✓	□	□	□	□	□	□	Exclude						
A44	Enhancing Security	2024	https://www.sco	The emergence of AI-based co		✓	✓	✓	✓	✓	□	□	□	□	□	Include		- The quality and security of LLM generated code can - Code revised through ChatGPT addressed some sec - Following guidelines and incorporating best practices - Robust processes of code reviews and security testin - Improving security knowledge and skills of employee		- Do you perform any security testing (automati	- Do you perform any security testing (i	
A45	SparseTIR: Compo	2023	https://www.sco	Sparse tensors ar	Code Gener	✓	✓	✓	✓	✓	□	□	□	✓	□	Exclude						
A46	R-Blocks: an Energ	2024	https://www.sco	Emerging data-dri	Coarse-grai	✓	✓	✓	✓	□	□	□	□	□	□	Exclude						
A47	Improving domain-i	2024	https://www.sco	Context: Neural co	Code gener	✓	✓	✓	✓	□	□	□	□	□	□	Exclude						
A48	A Review on Code	2023	https://www.sco	Code generation is	automatic p	✓	✓	✓	✓	✓	□	□	□	□	□	Include	- LLM based code techniques have great				- Does automatic code generation increase you	- Does automatic code generation incre
A49	Distinguishing AI- a	2023	https://www.sco	While the use of AI	ai code gene	✓	✓	✓	✓	✓	□	□	□	□	□	Exclude						
A50	A User-Centered Si	2024	https://www.sco	Code generation t	code genera	✓	✓	✓	✓	✓	□	□	□	□	□	Include	- There are potential benefits to security w	- No significant difference of introducing CWE vulnerat			- Does LLM generated code introduce	
A51	Staged Compiler	2024	https://www.sco	Multi-stage progr	Compile-tim	✓	✓	✓	✓	□	□	□	□	□	□	Exclude						
A52	Salim: Security Ass	2024	https://www.sco	With the growing p	large langua	✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A53	Ansible Lightspeed	2024	https://www.sco	The availability of		✓	✓	✓	✓	□	□	□	□	✓	□	Exclude						
A54	Custom High-Perfo	2022	https://www.sco	Sparse computati	data-specific	✓	✓	✓	✓	□	□	□	□	□	□	Exclude						
A55	MPirigen: MPI Cod	2024	https://www.sco	The imperative nei	AI; code ger	✓	✓	✓	✓	□	□	□	□	□	□	Include	- Domain-specific models outperform larger, widely use					
A56	On the Reliability a	2024	https://www.sco	Recent studies hav	Automated p	✓	✓	✓	✓	□	□	□	□	□	□	Include						
A57	Research of Evalu	2024	https://www.sco	Large language m	x anomaly det	✓	✓	✓	✓	□	□	□	□	□	□	Include	- Detailed inputs, such as prompts with code snippets,			- How much do you think that context helps LLM	- How much do you think that context h	

[illegible]

A123	JiuJitsu: Removing	2023	https://www.sco	Code-reuse attack: code gener	✓	✓	□	✓	□	□	□	□	□	□	Exclude	- Due to computational complexity, LLMs have a limitat - LLMs often exhibited unwanted behaviour, such as m - It can be challenging for LLM to generate output that	- Do you think that LLMs often generate too shc - How often do you think that LLMs can hallucin - How good do you think LLMs are working with	- How often do you think that LLMs can		
A124	Deep learning for c	2024	https://www.sco	In the past decade artificial inte	✓	✓	✓	✓	✓	□	□	□	□	□	Include					
A125	CodeAttack: Code-	2023	https://www.sco	Pre-trained prograi	✓	✓	✓	✓	✓	□	□	□	□	□	Exclude					
A126	Natural Language t	2023	https://www.sco	A longstanding dre Code Gener	✓	✓	✓	✓	✓	□	□	□	✓	□	Exclude					
A127	Investigating the Ef	2024	https://www.sco	Large Language M Code Clone	✓	✓	✓	✓	✓	□	□	□	□	□	Exclude					
A128	Compiler-based Wt	2023	https://www.sco	Mobile applications! Android; Ch	✓	✓	✓	✓	✓	✓	□	□	□	□	Include					
A129	Generating Java co	2024	https://www.sco	The Large Langua ChatGPT; C	✓	✓	✓	✓	✓	✓	□	□	□	□	Exclude					
A130	SecCoder: Towards	2024	https://www.sco	After large models	✓	✓	✓	✓	✓	✓	□	□	□	✓	Exclude					
A131	ExploitGen: Templa	2023	https://www.sco	Exploit code is wid Code gener	✓	✓	✓	✓	✓	□	□	□	□	□	Exclude					
A132	TrojanPuzzle: Cove	2024	https://www.sco	With tools like Gith- Code Gener	✓	✓	✓	✓	✓	✓	□	□	□	✓	Exclude					
A133	An Effective Cardle	2023	https://www.sco	Rapider responses Authenticatio	✓	✓	✓	✓	✓	□	□	□	□	□	Exclude					
A134	Enhancing Code Li	2023	https://www.sco	Automated prograr Curriculum L	✓	✓	✓	✓	✓	✓	□	□	□	✓	Exclude					
A135	Sifting through the i	2024	https://www.sco	Large Language M code genera	✓	✓	✓	✓	✓	□	□	□	□	□	Exclude					
A136	A Code Centric Eva	2023	https://www.sco	Recent years have datasets; pre	✓	✓	✓	✓	✓	✓	□	□	□	□	Exclude					
A137	Free your mouse! C	2024	https://www.sco	Recently, LLMs ha	✓	✓	✓	✓	✓	✓	□	□	□	□	Exclude					
A138	Learning Defect Pri	2024	https://www.sco	Pretrained models n/a	✓	✓	✓	✓	✓	✓	□	□	□	✓	Exclude					
A139	PAVR: A Pre-Traini	2024	https://www.sco	As vulnerability del Auto-matic F	✓	✓	✓	✓	✓	□	□	□	□	□	Exclude					
A140	Promise and Peril c	2024	https://www.sco	In the rapidly evolvi code genera	✓	✓	✓	✓	✓	✓	□	□	□	✓	Exclude					
A141	A Systematic Study	2023	https://www.sco	The development c	✓	✓	✓	✓	✓	✓	□	□	□	□	Include	- For algorithmic tasks, ChatGPT performs	- ChatGPT performance is low in underrepresented lan - If prompts are vague or complex, it becomes harder f - Generated code sometimes lacks crucial information	- How well do you think that LLM generated coc - How important do you think it is for the prompt - Do you think that Generated code sometimes	- Do you think code generated by LLMs - How often do you have to re-explain y - How important do you think it is for th	
A142	Imperfect Code Gei	2024	https://www.sco	The task of code g	✓	✓	✓	✓	✓	✓	□	□	□	□	Include					
A143	Recursive SQL and	2022	https://www.sco	In machine learnin Code-gener	✓	✓	✓	✓	✓	□	□	□	□	□	Exclude					
A144	Accessibility in AI-A	2024	https://www.sco	Despite extensive Code Gener	✓	✓	✓	✓	✓	✓	□	□	□	□	Include	- Copilot was dependent on accessing current element - Copilot can not surpasses the accessibility standards se - Copilot sometimes hallucinates inaccessible elements	- How often do you think that LLMs can hallucin	- How often do you think that LLMs can		
A145	Revisiting Formal V	2023	https://www.sco	While the immutab Automated V	✓	✓	✓	✓	✓	□	□	□	□	□	Exclude					
A146	Development for Hi	2024	https://www.sco	With the advent of code genera	✓	✓	✓	✓	✓	✓	□	□	□	□	Exclude					
A147	Blazing a New Trail	2023	https://www.sco	This research delv Anti Money f	✓	✓	✓	✓	✓	✓	□	□	□	□	Exclude					
A148	RTCoder: An Apprc	2023	https://www.sco	Regarding code ge Code-gener	✓	✓	✓	✓	✓	✓	□	□	□	□	Exclude					
A149	MCoNaLa: A Bench	2023	https://www.sco	While there has be	✓	✓	✓	✓	✓	✓	□	□	□	✓	Exclude					
A150	Code Smell Detecti	2023	https://www.sco	Code smells frequ Code-gener	✓	✓	✓	✓	✓	✓	□	□	□	□	Exclude					
A151	Execution-Based E	2023	https://www.sco	To extend the scop	✓	✓	✓	✓	✓	✓	□	□	□	□	Exclude					
A152	DataRecipe - How I	2024	https://www.sco	Despite the prolifer	✓	✓	✓	✓	✓	✓	□	□	□	✓	Exclude					
A153	A Novel Hybrid Dee	2022	https://www.sco	As the use of devic	✓	✓	✓	✓	✓	✓	□	□	□	□	Exclude					
A154	ChatPhishDetector:	2024	https://www.sco	Large Language M Large langu	✓	✓	✓	✓	✓	✓	□	□	□	✓	Exclude					
A155	Survey of Automati	2024	https://www.sco	In recent years, the automatic ex	✓	✓	✓	✓	✓	✓	□	□	□	□	Exclude					
A156	Tacoma: Enhanced	2024	https://www.sco	Browsers are resp Browser; Fu	✓	✓	✓	✓	✓	✓	□	□	□	✓	Exclude					
																Include	39			
																Exclude	117			
																Tot	156			