Initial search results

- **Google scholar:** research link (Searched on 11/05/2024)
    - Returned 1500 results
- **Springer nature:** research link (Searched on 11/05/2024)
    - Returned 138 results
- **ACM digital library:** research link (Searched on 11/05/2024)
    - Returned 198 results

Title examination

At this stage of the selection process, we selected the first 15 works with interesting titles per person from Google Scholar, aiming to include at least 10 works from this source in the final selection. This approach was adopted due to the significantly higher number of results returned by Google Scholar compared to other sources. Two people conducted the searches, resulting in 30 papers from this source being selected during this phase.

- **Google scholar:**

Nº	Reference
1	ARTHUR, Menaka Pushpa. Automatic source code documentation using code summarization technique of NLP. Procedia Computer Science, v. 171, p. 2522-2531, 2020.
2	CIURUMELEA, Nicoleta Adelina. Generating completion suggestions for source code comments using neural language models. 2023. Tese de Doutorado. University of Zurich.
3	FAN, Angela et al. Large language models for software engineering: Survey and open problems. In: 2023 IEEE/ACM International Conference on Software Engineering: Future of Software Engineering (ICSE-FoSE). IEEE, 2023. p. 31-53.
4	SU, Yiming et al. Hotgpt: How to make software documentation more useful with a large language model?. In: Proceedings of the 19th Workshop on Hot Topics in Operating Systems. 2023. p. 87-93.
5	GENG, Mingyang et al. Large language models are few-shot summarizers: Multi-intent comment generation via in-context learning. In: Proceedings of the 46th IEEE/ACM International Conference on Software Engineering. 2024. p. 1-13.

6	CIURUMELEA, Adelina; PROKSCH, Sebastian; GALL, Harald C. Suggesting comment completions for python using neural language models. In: 2020 IEEE 27th international conference on software analysis, evolution and reengineering (SANER). IEEE, 2020. p. 456-467.
7	ZHENG, Zibin et al. Towards an understanding of large language models in software engineering tasks. arXiv preprint arXiv:2308.11396, 2023.
8	DHYANI, Prakhar et al. Automated API Docs Generator using Generative AI. In: 2024 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS). IEEE, 2024. p. 1-6.
9	BAPPON, Suborno Deb; MONDAL, Saikat; ROY, Banani. AUTOGENICS: Automated Generation of Context-Aware Inline Comments for Code Snippets on Programming Q&A Sites Using LLM. arXiv preprint arXiv:2408.15411, 2024.
10	KNEIDINGER, Magdalena; FENEBERGER, Markus; PLÖSCH, Reinhold. Using GPT-4 for Source Code Documentation. WiPiEC Journal-Works in Progress in Embedded Computing Journal, v. 10, n. 2, 2024.
11	ZHENG, Zibin et al. Towards an understanding of large language models in software engineering tasks. arXiv preprint arXiv:2308.11396, 2023.
12	MATSKEVICH, Sergey. Generating Comments From Source With Logical Forms. 2024. Tese de Doutorado. Drexel University.
13	GONZÁLEZ-MORA, César et al. Applying natural language processing techniques to generate open data web APIs documentation. In: Web Engineering: 20th International Conference, ICWE 2020, Helsinki, Finland, June 9–12, 2020, Proceedings 20. Springer International Publishing, 2020. p. 416-432.
14	DECROP, Alix et al. You Can REST Now: Automated Specification Inference and Black-Box Testing of RESTful APIs with Large Language Models. arXiv preprint arXiv:2402.05102, 2024.
15	YANG, Chengran et al. Apidocbooster: An extract-then-abstract framework leveraging large language models for augmenting api documentation. arXiv preprint arXiv:2312.10934, 2023.
16	LAZAR, Koren et al. SpeCrawler: Generating OpenAPI Specifications from API Documentation Using Large Language Models. arXiv preprint arXiv:2402.11625, 2024.
17	LYU, Michael R. et al. Automatic Programming: Large Language Models and Beyond. arXiv preprint arXiv:2405.02213, 2024.
18	KRUSE, Hans-Alexander; PUHLFÜRß, Tim; MAALEJ, Walid. Can Developers Prompt? A Controlled Experiment for Code Documentation Generation.

19	GUELMAN, Ian et al. Using Large Language Models to Document Code: A First Quantitative and Qualitative Assessment. arXiv e-prints, p. arXiv: 2408.14007, 2024.
20	GONZÁLEZ-MORA, César et al. Improving open data web API documentation through interactivity and natural language generation. Computer Standards & Interfaces, v. 83, p. 103657, 2023.
21	DELLA PORTA, Antonio et al. Using Large Language Models to Support Software Engineering Documentation in Waterfall Life Cycles: Are We There Yet?. 2024.
22	AHMED, Toufique; DEVANBU, Premkumar. Few-shot training LLMs for project-specific code-summarization. In: Proceedings of the 37th IEEE/ACM International Conference on Automated Software Engineering. 2022. p. 1-5.
23	FRATTINI, Julian; FISCHBACH, Jannik; BAUER, Andreas. CiRA: An Open-Source Python Package for Automated Generation of Test Case Descriptions from Natural Language Requirements. In: 2023 IEEE 31st International Requirements Engineering Conference Workshops (REW). IEEE, 2023. p. 68-71.
24	DORNINGER, Bernhard et al. On the Creation and Maintenance of a Documentation Generator in an Applied Research Context. In: International Conference on Database and Expert Systems Applications. Cham: Springer International Publishing, 2022. p. 129-140.
25	VEGA CARRAZAN, Pablo Federico. Large Language Models Capabilities for Software Requirements Automation. 2024. Tese de Doutorado. Politecnico di Torino.
26	ALREFAI, Adam; ALSADI, Mahmoud. Large Language Models for Documentation: A Study on the Effects on Developer Productivity. 2024.
27	DIGGS, Colin et al. Leveraging LLMs for Legacy Code Modernization: Challenges and Opportunities for LLM-Generated Documentation. arXiv preprint arXiv:2411.14971, 2024.
28	HUANG, Yuan et al. Generative Software Engineering. arXiv preprint arXiv:2403.02583, 2024.
29	VENKATKRISHNA, Vatsal et al. DocGen: Generating Detailed Parameter Docstrings in Python. arXiv preprint arXiv:2311.06453, 2023.
30	DVIVEDI, Shubhang Shekhar et al. A comparative analysis of large language models for code documentation generation. In: Proceedings of the 1st ACM International Conference on AI-Powered Software. 2024. p. 65-73.

- **Springer nature:**

Nº	Reference
1	BELZNER, Lenz; GABOR, Thomas; WIRSING, Martin. Large language model assisted software engineering: prospects, challenges, and a case study. In: International Conference on Bridging the Gap between AI and Reality. Cham: Springer Nature Switzerland, 2023. p. 355-374.
2	SHEIKHAEI, Mohammad Sadegh et al. An empirical study on the effectiveness of large language models for SATD identification and classification. Empirical Software Engineering, v. 29, n. 6, p. 159, 2024.
3	CIURUMELEA, Adelina et al. Completing Function Documentation Comments Using Structural Information. Empirical Software Engineering, v. 28, n. 4, p. 86, 2023.
4	MATHIEU, Bourdin et al. Exploring the applications of natural language processing and language models for production, planning, and control activities of SMEs in industry 4.0: a systematic literature review. Journal of Intelligent Manufacturing, p. 1-21, 2024.
5	ZHANG, Xuejun et al. A review of automatic source code summarization. Empirical Software Engineering, v. 29, n. 6, p. 162, 2024.
6	LI, Jia Allen et al. Editsum: A retrieve-and-edit framework for source code summarization. In: 2021 36th IEEE/ACM International Conference on Automated Software Engineering (ASE). IEEE, 2021. p. 155-166.
7	PANTELIMON, Florin Valeriu; POSEDARU, Bogdan Ștefan. Improving Programming Activities Using ChatGPT: A Practical Approach. In: International Conference on Informatics in Economy. Singapore: Springer Nature Singapore, 2023. p. 307-316.
8	LIUKKO, Väinö et al. ChatGPT as a Full-Stack Web Developer. In: Generative AI for Effective Software Development. Cham: Springer Nature Switzerland, 2024. p. 197-215.
9	ALHARBI, Seham; KOLOVOS, Dimitris; MATRAGKAS, Nicholas. Synthesising Linear API Usage Examples for API Documentation. In: 2022 IEEE International Conference on Software Maintenance and Evolution (ICSME). IEEE, 2022. p. 607-611.
10	HUANG, Grace; HUANG, Ken. ChatGPT in Product Management. In: Beyond AI: ChatGPT, Web3, and the Business Landscape of Tomorrow. Cham: Springer Nature Switzerland, 2023. p. 97-127.
11	ZHANG, Donghua et al. FCSO: Source Code Summarization by Fusing Multiple Code Features and Ensuring Self-consistency Output. In: International Conference on Algorithms and Architectures for Parallel

	Processing. Singapore: Springer Nature Singapore, 2023. p. 112-129.
12	DAS, Souvick et al. CoDescribe: An Intelligent Code Analyst for Enhancing Productivity and Software Quality. In: International Symposium on Applied Computing for Software and Smart Systems. Singapore: Springer Nature Singapore, 2023. p. 161-181.
13	WHITE, Jules et al. Chatgpt prompt patterns for improving code quality, refactoring, requirements elicitation, and software design. In: Generative AI for Effective Software Development. Cham: Springer Nature Switzerland, 2024. p. 71-108.

- **ACM digital library:**

Nº	Reference
1	KHAN, Junaed Younus; UDDIN, Gias. Automatic code documentation generation using gpt-3. In: Proceedings of the 37th IEEE/ACM International Conference on Automated Software Engineering. 2022. p. 1-6.
2	NOUWENS, Midas et al. Between scripts and applications: Computational media for the frontier of nanoscience. In: Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems. 2020. p. 1-13.
3	YAGHOUB-ZADEH-FARD, Mohammad-Ali et al. REST2Bot: bridging the gap between bot platforms and REST APIs. In: Companion Proceedings of the Web Conference 2020. 2020. p. 245-248.
4	DE BARI, Daniele et al. Evaluating Large Language Models in Exercises of UML Class Diagram Modeling. In: Proceedings of the 18th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement. 2024. p. 393-399.
5	FANG, Hongbo; HERBSLEB, James; VASILESCU, Bogdan. Matching Skills, Past Collaboration, and Limited Competition: Modeling When Open-Source Projects Attract Contributors. In: Proceedings of the 31st ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering. 2023. p. 42-54.
6	BOZIC, Bojan; SASIKUMAR, Jayadeep Kumar; MATTHEWS, Tamara. KnowText: Auto-generated Knowledge Graphs for custom domain applications. In: The 23rd International Conference on Information Integration and Web Intelligence. 2021. p. 350-358.
7	DING, Zishuo. Towards Utilizing Natural Language Processing Techniques to Assist in Software Engineering Tasks. In: 2023 IEEE/ACM 45th International Conference on Software Engineering: Companion Proceedings (ICSE-Companion). IEEE, 2023. p. 286-290.

8	GREINER, Sandra et al. Automated Generation of Code Contracts: Generative AI to the Rescue?. In: Proceedings of the 23rd ACM SIGPLAN International Conference on Generative Programming: Concepts and Experiences. 2024. p. 1-14.
9	SOVRANO, Francesco; VITALI, Fabio. Generating user-centred explanations via illocutionary question answering: From philosophy to interfaces. ACM Transactions on Interactive Intelligent Systems, v. 12, n. 4, p. 1-32, 2022.
10	NAM, Daye et al. Understanding documentation use through log analysis: A case study of four cloud services. In: Proceedings of the CHI Conference on Human Factors in Computing Systems. 2024. p. 1-17.
11	SOVRANO, Francesco; LOGNOUL, Michaël; BACCHELLI, Alberto. An Empirical Study on Compliance with Ranking Transparency in the Software Documentation of EU Online Platforms. In: Proceedings of the 46th International Conference on Software Engineering: Software Engineering in Society. 2024. p. 46-56.
12	VENKATKRISHNA, Vatsal et al. Multi-step Automated Generation of Parameter Docstrings in Python: An Exploratory Study. In: Proceedings of the 2024 IEEE/ACM 46th International Conference on Software Engineering: Companion Proceedings. 2024. p. 356-357.
13	HAQUE, Sakib et al. Improved automatic summarization of subroutines via attention to file context. In: Proceedings of the 17th International Conference on Mining Software Repositories. 2020. p. 300-310.
14	TUFANO, Rosalia et al. Unveiling ChatGPT's Usage in Open Source Projects: A Mining-based Study. In: 2024 IEEE/ACM 21st International Conference on Mining Software Repositories (MSR). IEEE, 2024. p. 571-583.
15	TREUDE, Christoph; MIDDLETON, Justin; ATAPATTU, Thushari. Beyond accuracy: Assessing software documentation quality. In: Proceedings of the 28th ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering. 2020. p. 1509-1512.
16	AGHAJANI, Emad et al. Software documentation: the practitioners' perspective. In: Proceedings of the ACM/IEEE 42nd International Conference on Software Engineering. 2020. p. 590-601.
17	YEN, Jane et al. Semi-automated protocol disambiguation and code generation. In: Proceedings of the 2021 ACM SIGCOMM 2021 Conference. 2021. p. 272-286.
18	DVIVEDI, Shubhang Shekhar et al. A comparative analysis of large language models for code documentation generation. In: Proceedings of the 1st ACM International Conference on AI-Powered Software. 2024. p. 65-73.

Sections examination

After selecting the works based on their titles, we proceeded to read the abstracts and sections such as the introduction and conclusion. Additionally, in some cases, the full article was read. This process resulted in 24 works comprising our final selection.

Final selection

The works included in our final selection are available in the "selected" folder of this same repository.