



ICDMAI2025 notification for paper 183

From ICDMAI2025 <icdmai2025@easychair.org>

Date Wed 11/27/2024 2:49 PM

To Amit Das <amit@iem.edu.in>

Dear Amit Kumar Das,

Seasons greetings.

On behalf of the technical program committee would like to inform you that your paper is provisionally accepted for the presentation in ICDMAI2025, as final decision of acceptance of your paper by Springer based on Plagiarism & members I originality of work.

Kindly go through the reviews given by expert reviewers and if necessary, revisit your research paper and submit again before 15 Dec. 2024.

Registration to the conference is open now ,kindly proceed to registration through the Registration link on conference website https://icdmai.org/reg_for_payment . Registration is compulsory at least by one author.

Presentation of paper in offline mode is compulsory and in any circumstance what whatever it may be, an Online presentation request will not be considered.

Regards

Saptarsi Goswami

SUBMISSION: 183

TITLE: Recommendation Framework for Generative AI-Assisted Software Development

----- REVIEW 1 -----

SUBMISSION: 183

TITLE: Recommendation Framework for Generative AI-Assisted Software Development

AUTHORS: Amit Kumar Das, Swastik Chattopadhyay, Sagnik Sengupta, Soumili Das and Sayak Pal

----- Overall evaluation -----

SCORE: 2 (accept)

----- TEXT:

This paper examines the transformative role of Generative AI (GenAI) in software development, detailing its application in tasks like code generation, refactoring, and debugging through tools like GitHub Copilot and Tabnine. It provides actionable recommendations for developers and organizations to leverage GenAI for improved productivity, code quality, and development efficiency. Comments

- This is a very timely topic
- The paper is written well, the structure may be improved, the background section is too short and the text in many cases may be represented better with tables
- The hallucination aspect is not touched upon
- Productivity gains in different activities may be discussed
- How the complexity of the project can affect the gen AI usage will be interesting to read.

----- REVIEW 2 -----

SUBMISSION: 183

TITLE: Recommendation Framework for Generative AI-Assisted Software Development

AUTHORS: Amit Kumar Das, Swastik Chattopadhyay, Sagnik Sengupta, Soumili Das and Sayak Pal

----- Overall evaluation -----

SCORE: 2 (accept)

----- TEXT:

Need to quantify work and explain future directions of work.

----- REVIEW 3 -----

SUBMISSION: 183

TITLE: Recommendation Framework for Generative AI-Assisted Software Development

AUTHORS: Amit Kumar Das, Swastik Chattopadhyay, Sagnik Sengupta, Soumili Das and Sayak Pal

----- Overall evaluation -----

SCORE: 2 (accept)

----- TEXT:

The paper, "Recommendation Framework for Generative AI-Assisted Software Development," discusses the integration of Generative AI (GenAI) into software engineering practices. It explores the potential of tools like GitHub Copilot, Tabnine, and others to enhance code generation, refactoring, debugging, and testing. Here are my comments.

The paper addresses the transformative impact of GenAI on software development, a timely topic as tools like ChatGPT and GitHub Copilot are revolutionizing the industry. It highlights practical use cases for GenAI, such as code generation, refactoring, test case creation, and reverse engineering. Detailed recommendations for tools (e.g., GitHub Copilot for code generation, Tabnine for refactoring) provide actionable insights for developers and organizations. The inclusion of specific tools and frameworks ensures that the paper is rooted in real-world applications. The paper systematically explores various facets of software engineering that can benefit from GenAI, such as productivity improvement, test generation, and architectural design. It outlines challenges and opportunities, providing a balanced perspective on GenAI's strengths and limitations. Key trends like multimodal generative models, ethical considerations, and human-AI collaboration are discussed, broadening the scope beyond code automation. The structured list of recommendations (for code generation, refactoring, testing) enhances the paper's utility for practitioners.

However, the recommendations are not supported by empirical benchmarks or comparisons between tools. This reduces the credibility of the claims regarding tool effectiveness. In the paper, the statements like "time for code development has decreased by 50%" lack citations or supporting data. More rigorous evidence is needed to back such claims. While ethical considerations are mentioned in the paper, there is no in-depth exploration of potential issues like data privacy, bias in training data, and misuse of generated code. Certain sections reiterate points (e.g., the benefits of GenAI tools) without adding new insights. The paper could be more concise. The paper may use visual aids such as comparison charts of tool performance, diagrams explaining workflows involving GenAI-assisted development. It would be a good value addition, if the paper can touch upon the software development lifecycle by leveraging AI Agents.

This paper is a good candidate for acceptance. The practical recommendations and tool-focused insights make the paper relevant to practitioners and organizations. However, the authors should address the above aspects. By incorporating the above revisions, it will better serve both academic and practical audiences, enhancing its value for the conference and subsequent publication.

