

# Palash Roy, M.Sc. Student

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## Education

- 2022 – Present 📖 **M.Sc. Computer Science** in University of Saskatchewan.  
Thesis title: *An Exploratory Study on the Roles of LLMs on Code Similarity Detection and Generations.*  
**Committee:** Dr. Lucas Lehnert & Dr. Shahedul Khan  
**Supervisors:** Dr. Banani Roy & Dr. Kevin Schneider  
NSERC Faculty Scholarship, Grade: 88%
- May 2022 – Aug 2022 📖 **Visiting Research Student** in University of Saskatchewan.  
Conducted research on software engineering under the guidance of Professor Chanchal Roy. Gained experience in TDD, Software Clones, Reverse engineering, and Machine Learning.
- 2018 – 2021 📖 **B.Sc., Computer Science and Engineering** in BRAC University  
Thesis title: *A study on author ranking.*  
**Supervisor:** Dr. Mohammad Kaykobad  
Grade: 3.58/4 (Graduated with Distinction)  
VC's List, Dean's List

## Research Publications

### Conference Proceedings

- 1 M. M. Billah, P. R. Roy, Z. Codabux, and B. Roy, "Are large language models a threat to programming platforms? an exploratory study," 2024. ACM International Symposium on Empirical Software Engineering and Measurement (ESEM): 2409.05824 (cs.SE).
- 2 A. I. Alam, P. R. Roy, F. Al-Omari, C. K. Roy, B. Roy, and K. A. Schneider, "Gptclonebench: A comprehensive benchmark of semantic clones and cross-language clones using gpt-3 model and semanticclonebench," in *2023 IEEE International Conference on Software Maintenance and Evolution (ICSME)*, 2023, pp. 1–13. 📄 DOI: 10.1109/ICSME58846.2023.00013.
- 3 P. R. Roy, A. I. Alam, F. Al-omari, B. Roy, C. K. Roy, and K. A. Schneider, "Unveiling the potential of large language models in generating semantic and cross-language clones," in *2023 IEEE 17th International Workshop on Software Clones (IWSC)*, 2023, pp. 22–28. 📄 DOI: 10.1109/IWSC60764.2023.00011.
- 4 P. R. Roy, M. N. Islam, L. T. Jeba, *et al.*, "A study on paper and author ranking," in *2022 International Conference on Innovations in Science, Engineering and Technology (ICISSET)*, 2022, pp. 545–549. 📄 DOI: 10.1109/ICISSET54810.2022.9775821.

### Research Posters

- 1 O. et al., *GPTCloneBench insights: GPT-model's manual validation journey*, 7th Symposium on Innovations in Computer Science and Applied Computing (ICSAC), 2023.
- 2 P. R. Roy, A. I. Alam, F. Al-omari, B. Roy, C. K. Roy, and K. A. Schneider, *GPTvsSO: The ultimate battle in code search*, 7th Symposium on Innovations in Computer Science and Applied Computing (ICSAC), 2023.

### Manuscript Submitted

- 1 *A case study of semantic code clone generated by large language models on modern clone detectors.*
- 2 *A deep dive into developer's mind with devgpt.*
- 3 *Are the classical clone detector good enough for the ai era?*
- 4 *From prompts to code: Exploration of gpt's response complexity and code quality.*
- 5 *A qualitative study on xai techniques for software defect prediction.*

## Awards and Achievements

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- 2023
- 📌 **Student Encouragement Award**, IWSC-2023 at Bogota, Colombia.
  - 📌 **People's Choice Best Paper Award**, IWSC-2023 at Bogota, Colombia.
  - 📌 **People's Choice Best Presentation Award**, SOAR Symposium -2023 at Saskatoon, Saskatchewan.
  - 📌 **Featured News of Usask** titled **USask 'clones' researcher wins international award**, University of Saskatchewan.
- 2024
- 📌 **75th Anniversary Scholarship**, College of Graduate & Postdoctoral Studies(CGPS), University of Saskatchewan.
  - 📌 **CS Citizenship Awards (M.Sc.)**, Dept. of Computer Science, University of Saskatchewan.
  - 📌 **Research Awards**, 8th Symposium on Innovations in Computer Science and Applied Computing (ICSAC), University of Saskatchewan.
  - 📌 **Nominee, CS Geddes Awards (M.Sc.)**, Dept. of Computer Science, University of Saskatchewan.
  - 📌 **Nominee, Carl McCrosky Innovation Scholarship**, University of Saskatchewan.
  - 📌 **Nominee, Mark Kroeker Exceptional Student Leadership Award**, University of Saskatchewan.
  - 📌 **Nominee, Research Excellence in Science, Technology, Engineering, or Math**, University of Saskatchewan.

## Miscellaneous Experience

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### Invited Talks

- 2024
- 📌 **AI for Software Engineering**, University of Saskatchewan.
  - 📌 **The Effects of Visual Embellishment on Comprehension and Memorability of Charts**, University of Saskatchewan
- 2023
- 📌 **Software Engineering in Practise**, BRAC University
- 2022
- 📌 **How to start building your first Robot?**, BRAC University


### Peer Review

- 2022-Present
- 📌 **Reviewed multiple Software Engineering conferences and Journal submissions**  
ICSME, ASE, SCAM, SANER, MSR, JSS, TSE, and TOSEM





### Supervision

- Spring-Summer 2023
- 📌 **Supervised six undergraduate research student**, Software Research lab & Interactive Software Engineering Lab, University of Saskatchewan



## Miscellaneous Experience (continued)

Spring-Summer 2024  **Supervised one undergraduate research student who won an undergraduate research excellence award at ICSAC-24**, Software Research lab & Interactive Software Engineering Lab, University of Saskatchewan


### Volunteery Work


- 2024-2025  **President**, Bangladeshi Students' Association, University of Saskatchewan
- 2023-2024  **Vice President Finance**, Computer Science Graduate Council, University of Saskatchewan
- 2022-2023  **Vice President Social**, Computer Science Graduate Council, University of Saskatchewan
- 2018-2021  **Assistant General Secretary**, Robotics Club Of Brac University [ROBU]  
During my time as Assistant General Secretary of the Robotics Club at Brac University from 2018 to 2021, our projects achieved global recognition. The Mongol-Tori rover placed third in the 2020 University Rover Challenge, while our Duburi project ranked 8th in the 2018 Singapore Autonomous Underwater Vehicle Challenge. These successes showcase our dedication to robotics innovation. I also organized tech events like hackathons and programming contests. The club remains a dynamic platform for students to develop technical skills and leadership abilities in robotics.

## Employment History

- 2022 – Present  **Graduate Teaching Assistant.** Computer Science Department, College of Arts & Science, University of Saskatchewan, Canada.  
Courses: CMPT-141, CMPT-145, CMPT-370, CMPT-470/816, CMPT-885
- 2019 – 2021  **Robotics Instructor**, BRAC University.  
Conducted robotics classes on behalf of the Robotics Club of BRAC University. Developed curriculum, prepared lesson plans, and delivered lectures and hands-on activities to teach students about robotics principles, programming, and engineering. Supervised student projects and provided feedback to help students improve their skills. Worked collaboratively with other instructors and the Robotics Club to organize competitions, events, and workshops for students.

## References

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