

# Asif Kamal Turzo

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## Research Interests

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Empirical Software Engineering, Peer Code Review, Machine Learning, Code Review Automation, Software Security, Program Analysis, Mining Software Repositories, Natural Language Processing, Human Aspects of Software Engineering.

## Education

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### Wayne State University, Michigan, USA

Doctor of Philosophy  
Department of Computer Science, August 2024  
Current GPA: 3.98/4.0  
Advisor: Dr. Amiangshu Bosu

Dissertation title: Broadening Participation in Open Source Software Communities with Newcomers' Onboarding and Retention.

### Wayne State University, Michigan, USA

Masters of Science  
Major in Computer Science, August 2022  
Advisor: Dr. Amiangshu Bosu  
GPA: 4.0/4.0

### Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

Bachelor of Science  
Computer Science and Engineering, September 2017  
GPA: 3.45/4.0

## Publications

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### Journal Papers

\*In the Software Engineering field, TSE, EMSE, and TOSEM are considered top-tier journals.

1. **(EMSE-24)** **Asif Kamal Turzo**, and Amiangshu Bosu, "What Makes a Code Review Useful to OpenDev Developers? An Empirical Investigation." *Empirical Software Engineering (EMSE)*, vol. TBD, 2024. **Impact Factor: 8.7**
2. **(TOSEM-23)** Jaydeb Sarker, **Asif Kamal Turzo**, Ming Dong, and Amiangshu Bosu, "Automated Identification of Toxic Code Reviews Using ToxiCR.", *ACM Transactions on Software Engineering and Methodology (TOSEM)*, 32(5), july 2023, **Impact Factor: 4.6**

3. **(EMSE-23)** Sayma Sultana, Asif Kamal Turzo, and Amiangshu Bosu. “Code reviews in open source projects: how do gender biases affect participation and outcomes?.” *Empirical Software Engineering (EMSE)* 28, no. 4 (2023): 92, **Impact Factor: 8.7**
4. **(TSE-24, under major revision)** Asif Kamal Turzo, Sayma Sultana, and Amiangshu Bosu. “From First Patch to Long-Term Contributor: Evaluating Onboarding Recommendations for OSS Newcomers.” *IEEE Transactions on Software Engineering (TSE)*, vol. TBD, 2024, **Impact Factor: 9.2**

## Conference Papers

\*In the Software Engineering field, ICSE, FSE, and ASE are considered top-tier (A\*) conferences.

5. **(ESEM-23)** Asif Kamal Turzo, Fahim Faysal, Ovi Poddar, Jaydeb Sarker, Anindya Iqbal, and Amiangshu Bosu. Towards automated classification of code review feedback to support analytics. In *Proceedings of the 17th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM)*, vol. TBD, 2023. **Acceptance rate = (29%)**.
6. **(ICSE-21)** Rajshakhar Paul, Asif Kamal Turzo, and Amiangshu Bosu, “Why security defects go unnoticed during code reviews? a case-control study of the chromium os project. In *Proceedings of the 43th International Conference on Software Engineering (ICSE)*, page 1373-1385. IEEE, 2021. **Acceptance rate = (22%)**.
7. **(APSEC-20)** Jaydeb Sarker, Asif Kamal Turzo, and Amiangshu Bosu. A benchmark study of the contemporary toxicity detectors on software engineering interactions. In *Proceedings of the 27th Asia-Pacific Software Engineering Conference (APSEC)*, pages 218–227. IEEE, 2020. **Acceptance rate = (37%)**.

## Short Papers

8. **(ICSE-21)** Rajshakhar Paul, Asif Kamal Turzo, and Amiangshu Bosu, “A Dataset of Vulnerable Code Changes of the Chromium OS Project,” *2021 IEEE/ACM 43rd International Conference on Software Engineering: Companion Proceedings (ICSE-Companion)*, 2021, pp. 244-245.
9. **(ASE-22)** Asif Kamal Turzo, “Towards Improving Code Review Effectiveness Through Task Automation.” *37th IEEE/ACM International Conference on Automated Software Engineering (ASE)*, 2022 (Doctoral Symposium)

## Academic Employment

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**Postdoctoral Fellow**, August 2024 - Present

Department of Computer Science

Idaho State University, Pocatello, ID

**Advisor:** Dr. Minhaz Zibran and Dr. Farjana Eishita

**Graduate Teaching Assistant**, May 2022 - August 2024

Department of Computer Science

Wayne State University, Detroit, MI

**Graduate Research Assistant**, August 2019 - April 2022

Department of Computer Science

Wayne State University, Detroit, MI

**Project:** Worked on NSF grant #1850475 under the supervision of Dr. Amiangshu Bosu. The research focused on building an empirical understanding of useful code review and then utilizing the understanding to build a reviewer recommendation system for Open Source Software projects.

## Grant Writing Experience

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- ISU ISGP grant: Benchmarking Code Review Automation Tools for Software Quality and Security. Co-PI: Asif Kamal Turzo, (Under submission).
- ISU ISGP grant: Toward Effective Security Defect Fixing through Peer Code Reviews. Co-PI: Asif Kamal Turzo, (Under submission).

## Teaching Experience

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### Course Instructor (Wayne State University, MI, USA)

- CSC 3110: Algorithm Design and Analysis: Spring/Summer 2024
- CSC 4500: Introduction to Theoretical Computer Science: Spring/Summer 2022

### Teaching Assistant (Wayne State University, MI, USA)

- CSC 4996: Senior Capstone Project: Winter 2024
- CSC 4420: Computer Operating Systems: Spring/Summer 2023
- CSC 5991: ST: Scalable Microservices: Spring/Summer 2023
- CSC 4996: Senior Capstone Project: Fall 2023
- CSC 4996: Senior Capstone Project: Winter 2023
- CSC 4996: Senior Capstone Project: Fall 2022

## Software Industry Experience

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### Senior Software Developer

EnamelBD Private Limited  
From 11/2017 to 05/2018  
Dhaka, Bangladesh

### Software Developer

piSTRATEGY (Software and Consulting Company)  
From 2/2019 to 6/2019  
Dhaka, Bangladesh

## Tools and Applications

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**Tool Name: Code Review Comment Classification Tool** [GitHub]

- A tool developed in Python for classifying code review comments.
- Can be utilized to calculate code review analytics and to understand how effectively reviewers have identified software defects.

**Project Name: VAT Checker** Android Application

- Has saved government from 3 billion BDT(Bangladeshi Taka) VAT fraud.
- Has generated social awareness to prevent VAT fraud and achieved a number of national and international awards.

## Awards and Achievements

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- Outstanding Graduate Research Assistant Award in the Computer Science Department, Wayne State University.
- Champion at mBillionth Award, 2016 (Government and Citizen Engagement sector) for VAT Checker(it is considered one of the most prestigious awards in South Asia).
- Champion at National Mobile Application Award, 2016 for VAT Checker.
- Champion at BRAC Manthan Digital Innovation Award, 2016 (E-Governance and Institutions sector) for VAT Checker.
- NSF Travel Grant for attending ESEM-2023 conference.
- SIGSOFT CAPS award for attending ESEM-2023 conference.

## Academic Services

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### Reviewer

- ACM Transactions on Software Engineering and Methodology (TOSEM) Journal: 2024-Present
- Software Quality Journal: 2022-Present
- Junior PC member at Mining Software Repository (MSR) 2022 Conference

### Additional Reviewer

2021 IEEE/ACM 43rd International Conference on Software Engineering:  
Companion Proceedings (ICSE-Companion)

### Student Volunteer

- 43rd International Conference on Software Engineering (ICSE), 2021
- 37th IEEE/ACM International Conference on Automated Software Engineering (ASE), 2022

## **Presentations**

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- “Towards Improving Code Review Effectiveness Through Task Automation” at ASE-2022 Doctoral Symposium, Michigan, USA
- “Towards Automated Classification of Code Review Feedback to Support Analytics” at ESEM-2023, Louisiana, USA

## **Reference**

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**Dr. Amiangshu Bosu**, Assistant Professor, Dept. of Computer Science, Wayne State University

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**Dr. Minhaz F. Zibran**, Associate Professor, Dept. of Computer Science, Idaho State University

Email: minhazibran@isu.edu

**Dr. Farjana Eishita**, Assistant Professor, Dept. of Computer Science, Idaho State University

Email: farjanaeishita@isu.edu

**November 8, 2024**