

Kazi Samin Mubasshir

PH.D. CANDIDATE, DEPARTMENT OF COMPUTER SCIENCE, PURDUE UNIVERSITY

✉ kmubassh@purdue.edu | 🌐 www.ksmubasshir.com

Research Interests

Security of NextG Networks and Cloud Systems, Cellular Network Security, AI for Security, Security for Agentic AI

Education

Purdue University

Ph.D. in Computer Science

West Lafayette, IN

Fall 2022 - Spring 2027

- **Advisor:** Dr. Elisa Bertino
- **Research Topic:** Defending Cellular Networks from Persistent Threats, AI for Security
- **Courses:** AI Agentic Security, Security Analytics, Natural Language Processing, Network Security, Information Security, Distributed Systems, Data Communication and Computer Networks, Algorithm Design, Analysis and Implementations

Bangladesh University of Engineering and Technology

B.Sc. in Computer Science and Engineering

Dhaka, Bangladesh

Feb 2016 - Feb 2021

- **Thesis:** Aligner Ensembling, Batch Filtering, and New Datasets for Bengali-English Machine Translation
- **Advisor:** Dr. Rifat Shahriyar
- Graduated with Distinction

Work Experience

Amazon Web Services (AWS)

Applied Scientist Intern

Boston, Massachusetts

Summer [2024, 2025]

- External Security Services (ESS)
- Security Analytics and AI Research (SAAR)

Amazon

Campus Brand Ambassador (CBA)

West Lafayette, IN

Spring 2025 - Present

Purdue University

Graduate Assistantships

West Lafayette, IN

Fall '22 – Spring '26

- **Graduate Research Assistant**
 - Cyber Space Security Lab (Cyber2Slab), PI: Dr. Elisa Bertino
 - Fall '22 - Fall '24, Spring '26
- **Graduate Teaching Assistant**
 - CS180: Problem Solving and Object-Oriented Programming
 - Spring '25, Fall '25

Advanced Chemical Industries (ACI) Ltd.

Machine Learning Engineer

Dhaka, Bangladesh

Sept 2020 - Aug 2022

- Management Information Systems (MIS)

Bangladesh University of Engineering and Technology

Undergraduate Research Assistant

Dhaka, Bangladesh

Mar 2019 - Feb 2021

- BUET CSE NLP Group (PI: Dr. Rifat Shahriyar)

Publications

CONFERENCE PROCEEDINGS

- Karim, Imtiaz, Hyunwoo Lee, Hassan Asghar, **Kazi Samin Mubasshir**, Seulgi Han, Mashroor Hasan Bhuiyan, and Elisa Bertino. "VWAttacker: A Systematic Security Testing Framework for Voice over WiFi User Equipments." IEEE International Conference on Computer Communications (INFOCOM), 2026.
- Uccello, Federica, Imtiaz Karim, **Kazi Samin Mubasshir**, Elisa Bertino, and Simin Nadjm-Tehrani. "Mission Explainable: From Feature Attribution to Mitigation in 5G Anomaly Detection." International Conference on Computing, Networking and Communication (ICNC), 2026.

- **Kazi Samin Mubasshir***, Imtiaz Karim*, Elisa Bertino, Gotta Detect 'Em All: Fake Base Station and Multi-Step Attack Detection in Cellular Networks, The 34th USENIX Security Symposium (Usenix Sec), 2025, (*joint first authors).
- Imtiaz Karim, **Kazi Samin Mubasshir**, Mirza Masfiquir Rahman, Elisa Bertino, SPEC5G: A Dataset for 5G Cellular Network Protocol Analysis, IJCNLP-AAACL 2023: The 13th International Joint Conference on Natural Language Processing and the 3rd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics
- Abhik Bhattacharjee, Tahmid Hasan, **Kazi Samin**, Md Saiful Islam, M. Sohel Rahman, Anindya Iqbal, Rifat Shahriyar, BanglaBERT: Combating Embedding Barrier for Low-Resource Language Understanding, Findings of the Association for Computational Linguistics: NAACL 2022
- Tahmid Hasan, Abhik Bhattacharjee, Md Saiful Islam, **Kazi Samin**, Yuan-Fang Li, Yong-Bin Kang, M. Sohel Rahman, Rifat Shahriyar, XL-Sum: Large-Scale Multilingual Abstractive Summarization for 44 Languages, Findings of the Association for Computational Linguistics: ACL-IJCNLP 2021
- Tahmid Hasan, Abhik Bhattacharjee, **Kazi Samin**, Masum Hasan, Madhusudan Basak, M. Sohel Rahman and Rifat Shahriyar, Not Low-Resource Anymore: Aligner Ensembling, Batch Filtering, and New Datasets for Bengali-English Machine Translation, Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)

Academic Service

- **Organizing:** Web Chair, NextG Networks Cryptography and Security Workshop (co-located with ACNS 2026)
- **Program Committee:** RAID 2026 (Associate PC); NextG-Sec 2026
- **Reviewer:** IEEE Communications Magazine; IEEE Transactions on Mobile Computing; IEEE Transactions on Networking
- **Sub-Reviewer:** ACM TOPS; IEEE S&P ('25,'26); CCS '25; USENIX Sec '26; NDSS ('24-'26); Euro S&P '26; ACNS '26; RAID ('23,'24); ICDCS '23; CODASPY '23
- **Artifact Evaluation Committee:** CCS ('24,'25); USENIX Sec '23; WOOT @ IEEE S&P '23
- **Mentoring:** CSGSB Mentor-Mentee Program ('24,'25) — mentored 6 Purdue CS graduate students

Media Coverage and Software Artifacts

- **SPEC5G:** GitHub Repo: <https://github.com/SysNetS/SPEC5G>
- **FBS-Detector:** GitHub Repo: <https://github.com/SysNetS/fbsdetector>
FBSDetector in News: Platforms for Advanced Wireless Research, Purdue Computer Science.

Talks and Presentations

- Cellular Network Security, CS 6301.001 - Special Topics in Computer Science Security of Emerging Networks, The University of Texas at Dallas, Spring 2026
- Gotta Detect 'Em All: Fake Base Station and Multi-Step Attack Detection in Cellular Networks, 34th USENIX Security Symposium, Seattle, Washington, August 2025.
- Detecting Fake Base Stations in Cellular Networks, AWS-SAAR Tech Talks, Amazon, Boston, July, 2024.
- Fake Base Station Detection using PAWR Platforms, Young Gladiators-2023, Northeastern University, Boston, June, 2023.
- Fake Base Station Detection - Summary of research project conducted on the POWDER platform, MERIF-2023, Boston University, Boston, May, 2023.

Awards and Achievements

- 2025 **Travel Award**, Purdue Graduate Student Government (PGSG)
- 2025 **Graduate Travel Award**, Purdue College of Science (CoS)
- 2025 **Student Grant**, USENIX Security Symposium
- 2022 **Robi Datathon 2.0**, Runners-up
- 2022 **AI for Bangla 1.0**, Second runners-up
- 2017-20 **Dean's Listed**, Four consecutive years of the undergraduate studies