

Aszadurrahman Rakin

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RESEARCH INTERESTS

Systems Reliability for Cloud and AI Systems

EDUCATION

Boston University

Ph.D. in Computer Engineering

Boston, MA, USA

September 2025 – Present

Bangladesh University of Engineering and Technology (BUET)

B.Sc. in Computer Science and Engineering; CGPA: 3.89/4.00

Dhaka, Bangladesh

April 2019 – July 2024

WORK EXPERIENCE

BUET

Machine Learning Engineer

Dhaka, Bangladesh

Feb 2025 – August 2025, Full-time

Samsung Research Bangladesh & BUET

Research Engineer

Dhaka, Bangladesh

July 2024 – August 2025, Full-time

- Automated Android Software Testing

RESEARCH EXPERIENCE

Silent Performance Issue Detection in Cloud Systems

Boston University

Research Project

September 2025 – Present

- Investigated silent performance issues in open source cloud systems.
- Developed a prototype tool for silent performance issue detection.

Power Aware Scheduling of AI Workloads

Boston University & University of Washington

Research Project

April 2026 – Present

- Studied workloads that monopolize GPU resources, and the subsequent GPU behavior.

Symbolic Execution to Find Bugs in Update Patches

University of Washington and Vanderbilt University

Research Project

September 2024 – February 2025

- Gained proficiency with symbolic execution engine techniques
- Investigated program slicing methods to identify optimal sets of variables for symbolic analysis

Automated Android Testing Framework

Samsung Research Bangladesh & Bangladesh University of Engineering and Technology

Research Project

June 2024 – December 2024

- Contributed to the key algorithm/interaction mechanisms, specifically focusing on handling dynamic cycles in automated GUI interaction.
- Engineered test case generation strategies to improve bug detection and system failure identification

EXTRACURRICULARS

Competitive Programming

- **ICPC Regionals Dhaka Site**
- **CodeForces**: Max Rating: 1652

SKILLS

Programming Languages: Go, C/C++, Java, Python, JavaScript, TypeScript, SQL, XML, x86 Assembly, MIPS, $\text{\LaTeX}$, Bash

Operating Systems: xv6, Linux, Windows

Compiler Design Tools: Flex, Bison

Microcontrollers/Embedded Systems: Arduino, ATmega32

Framework and Libraries: Appium, ReactJS, expressJS, FastAPI, NextJS, PyTorch, HuggingFace, NLTK, Langchain

Database Management: OracleDB, PostgreSQL, MongoDB, Redis

Version Control System: Git

Cloud: AWS(VM), Google Cloud Platform(Maps), Azure(Voice Recognition, VM)