Kanak Das

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EDUCATION

University of California, Riverside *Sep 2022 - Current*
PhD in Computer Science
Advisor: Manu Sridharan
Research areas: Programming Languages, Trustworthy AI, Software Engineering

Bangladesh University of Engineering and Technology *Feb 2015 - April 2019*
Bachelor of Science in *Computer Science and Engineering*
Advisor: Md. Shohrab Hossain

PUBLICATIONS

Nima Karimipour, Kanak Das, Manu Sridharan, and Behnaz Hassanshahi. Practical Type-Based Taint Checking and Inference. *39th European Conference on Object-Oriented Programming (ECOOP 2025), 2025.*
Ajoy Das, Kanak Das, and Md. Shohrab Hossain. An Integrated Inspection and Visualization Tool for Accurate Android Collusive Malware Detection. *7th International Conference on Networking, Systems and Security (NSysS 2020)*, 2020.

RESEARCH EXPERIENCE

University of California, Riverside *Sep 2022 - Current*
Graduate Research Assistant

- Exploring abstract interpretation for neural network verification and interpretability.
- Developed a lightweight Taint Rule Type Checker on top of the Checker Framework, balancing soundness and practicality. Enhanced usability with type annotation inference and evaluated its effectiveness on large open-source Java programs.

Bangladesh University of Engineering and Technology *Nov 2019 - May 2020*
Research Assistant (part-time)
Contributed to a project *Diving deep into the Security Testing of the Android Applications of Bangladesh*, funded by Bangladesh ICT Innovation Fund.

Bangladesh University of Engineering and Technology *June 2018 - April 2019*
Undergraduate Thesis
Built an Inter Component Communication(ICC) based Collusive Malware Analysis and Visualization Tool to explore possible ICC based threats in Android apps.

WORK EXPERIENCE

Amazon Web Services(AWS) *Summer 2025*
Incoming Applied Scientist Intern

OpenRefactory, Inc. *June 2019 - Aug 2022*
Software Engineer, Lead Software Engineer
Worked on building developer tools using static analysis techniques. Developed and maintained Java checkers, integrated new technologies, and packaged products for various platforms. Key contributions include writing a checker for Java concurrency issues, bootstrapping static analysis frameworks for Python and TypeScript, improving serialization for better performance, converting core components to native code, and designing licensing schemes for multiple platforms.

TEACHING EXPERIENCE

University of California, Riverside
Graduate Teaching Assistant
Advanced Software Testing and Analysis *Winter 2024*
Principles of Programming Languages *Fall 2023*

HONORS

Outstanding Teaching Assistant Award | University of California, Riverside *2024*
Dean‘s Distinguished Fellowship | University of California, Riverside *2022*
National Champion | Bangladesh Chemistry Olympiad *2014*

ACTIVITIES/SERVICES

Invited to attend Programming Language Implementation Summer School *2025*
Student Volunteer at POPL’25 *2025*
Student Volunteer at SPLASH’24 *2024*
Attended Oregon Programming Languages Summer School *2024*