

# Kanak Das

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## EDUCATION

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### University of California, Riverside

Sep 2022 - Current

PhD in Computer Science

Advisor: Manu Sridharan

### Bangladesh University of Engineering and Technology

Feb 2015 - April 2019

Bachelor of Science in Computer Science and Engineering

Advisor: Md. Shohrab Hossain

## RESEARCH EXPERIENCE

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### University of California, Riverside

Sep 2022 – Current

Graduate Research Assistant

- Working on a pluggable type system based tainting checker for Java programs. Building this on top of the barebone subtyping checker for taint analysis in *Checker Framework*.
- Exploring demand-driven and incremental abstract interpretation.

### Bangladesh University of Engineering and Technology

Nov 2019 – May 2020

Research Assistant (part-time)

Contributed to a project titled *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

Worked on an Inter Component Communication (ICC) based Collusive Malware Analysis and Visualization Tool to demonstrate possible ICC based threats in Android apps.

## PUBLICATIONS

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Nima Karimipour, Kanak Das, Manu Sridharan, and Behnaz Hassanshahi. Practical Type-Based Taint Checking and Inference (*Under submission*).

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 (7th NSysS 2020)*, Dhaka, Bangladesh, December 2020.

## WORK EXPERIENCE

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### OpenRefactory, Inc.

June 2019 – Aug 2022

Software Engineer

Worked on this startup that focuses 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 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**

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**University of California, Riverside**

*Teaching Assistant*

Principles of Programming Languages  
Advanced Software Testing and Analysis

*Fall 2023*  
*Winter 2024*

## **HONORS**

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Outstanding Teaching Assistant Award | University of California, Riverside *2024*  
Dean's Distinguished Fellowship | University of California, Riverside *2022*  
National Champion | Bangladesh Chemistry Olympiad *2014*  
Bangladesh Education Board Scholarship *2006, 2009, 2012, 2014*