# Joydip Das

#### Education

**Shahjalal University Of Science and Technology**BSc(Engg) in Computer Science and Engineering

January 2018 - February 2023

CGPA: 3.55/4.00

Research Experience

A Study of Analysing and Modelling Attacks on Blockchain

2022 - 2023

Systems in a Layer-based Approach

Archive Link 🗷 | Publication Pending

**Supervisor**: Dr. Md Sadek Ferdous, Associate Professor, Department of CSE, BRAC Dr. Md Forhad Rabbi, Professor (SMIEEE), Department of CSE, SUST

 Analyzed 23 blockchain attacks using a novel framework to assess inter-layer implications, attack incentives, and mitigation strategies. Provided systematic insights into attack vectors and countermeasures to strengthen blockchain security.

# ■ Simulation and Risk Prediction analysis of Blockchain Attacks using Simblock

2023 - 2024 Writing in Progress

**Supervisor**: Dr. Md Forhad Rabbi, Professor (SMIEEE), Department of CSE, SUST Dr. Md Sadek Ferdous, Associate Professor, Department of CSE, BRAC

- Simulated blockchain attacks using SimBlock, testing scenarios with varied node counts, hashpower, adversary nodes, and block configurations.
- Conducted a comprehensive analysis of attack correlations and provided actionable recommendations to enhance blockchain security without using real-world mining resources.

# Professional Experience

# **Software Engineer**

August 2023 – June 2024

ReliSource Technologies Ltd.

Bangladesh

 Collaborated with a 10-person team on high-impact equipment financing projects, managing \$1M+ in loan data. Developed Salesforce CRM backend with Apex and front-end interfaces with AngularJS and Visualforce, delivering quality solutions across production cycles.

### **Associate Software Engineer**

July 2024 – Present

All Generation Tech

USA (remote)

• Designed workflows and optimized data integrations with Unqork for Fortune 500 clients. Collaborating with a 20+ engineer team, building custom interfaces and enhancing existing solutions for top-tier companies.

#### Extracurriculars, Awards & Scholarships

- Govt. Merit Scholarship for Excellence in Public Examination 2013, 2015, 2017 from Ministry of Education, Bangladesh.
- 5th place in Intra-SUST Competitive Programming, 2021.
- Competed in 300+ online contests on virtual judges like Codeforces, CodeChef, and AtCoder.
- Participated in **Bangladesh Blockchain Olympiad 2023**: Developed a decentralized wallet for secure transactions on a maintainable ledger.
- 1000+ problem solves around different online judges demonstrating my steadfastness and determination. Archive link ♂.

- Runners up, **Leading University Hackathon 2019** Developed a social app for effective teacher-student interaction with features like book lending and library management.
- National Physics Olympiad Participant, 2018.
- Trained 10+ high school students in C++ programming language and analytical problem solving.
- Active executive member of SUST Bicycle and fitness club (2018-2020).

#### Certifications

- AWS Cloud Foundation: Training and Certification -2023 ☑
- HackerRank Problem Solving ☑ HackerRank SQL ☑ HackerRank Python ☑
- The Unix Workbench

# **Open Source Contributions**

• **Prisma-multischema** 🗗 - developed and released a npm package which allows writing several schema files in an organized manner without restrictions. Total 70000+ downloads %.

# IELTS Results : ☑ ETRF PDF

Overall	Speaking	Listening	Reading	Writing
8.0	8.5	8.5	7.0	7.0

# Specialized Skills

Programming Languages: C++ (proficient), Javascript (proficient), Python

(intermediate), Java (intermediate), Apex, Matlab

Framework & Libraries: ReactJs, Scikit-learn, ExpressJs, NestJs

Databases: MySQL, Firebase, MongoDB

Version Control: Git, Bitbucket

Tools, Applications & Presentation: LaTeX, Google Colab, Android Studio (java),

Canva, Vercel

# **Projects**

#### **SimPlot** ReactJs, ChartJs, HTML5, Canvas API

Code ☑

- Visualize blockchain with customizable simulation parameters.
- Editable parameters includes simulation speed, block movement, and timestamp.

# **Certified** | GoLang, Hyperledger-fabric, Javascript

Code ☑

- Blockchain-based certificate verification system.
- Organizations like Universities can register, upload student/employee data, store it on the blockchain, and query using student IDs to view certificates with detailed information including CGPA.

# **Infinity-Commerce** Nodejs, expressJs, MongoDB

Code [₹

- Digital marketplace with order tracking & inventory management
- 3-stage order tracking, 16 APIs, three back-ends, online payments, sales with card payment, and admin/client privileges.

# Gleam | ReactJs, MaterialUI, Nodejs, expressJs, MongoDB

Code ☑

• Blogging platform to post tutorials, ideas, and interacting by comment, upvote/downvote.