

# Joydip Das

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✉ joydip64@student.sust.edu | 🌐 joydip | in joydip | 🎓 G-Scholar | 🆔 Orcid

## Education

**Shahjalal University Of Science and Technology** January 2018 – February 2023  
*BSc(Engg) in Computer Science and Engineering* CGPA : 3.55/4.00

## Research Experience

**A Study of Analysing and Modelling Attacks on Blockchain Systems in a Layer-based Approach** | Submitted to *Computer Networks* 2022 - 2023  
[Preprint Link](#)

**Supervisor:** Md Sadek Ferdous, Professor, Department of CSE, BRAC. | 🌐 📧  
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:** Md Sadek Ferdous, Professor, Department of CSE, BRAC. | 🌐 📧  
Md Forhad Rabbi, Professor (SMIEEE), Department of CSE, SUST | 🌐 📧

- 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

- Affiliated as a researcher with **SUBSEL** (Shahjalal University Blockchain and SEcurity Laboratory), first-ever blockchain-focused security research laboratory, in Bangladesh at SUST.
- 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

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- [AWS Cloud Foundation: Training and Certification - 2023](#) ↗
- [HackerRank Problem Solving](#) ↗
- [HackerRank SQL](#) ↗
- [HackerRank Python](#) ↗
- [The Unix Workbench](#) ↗

### Open Source Contributions

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- **Prisma-multischema** ↗ - developed and released a npm package which allows writing several schema files in an organized manner without restrictions. Total 85000+ downloads 📄.

IELTS Results : [↗ ETRF PDF](#)

Overall	Speaking	Listening	Reading	Writing
8.0	8.5	8.5	7.0	7.0

### Specialized Skills

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**Programming Languages:** C++ (proficient), Javascript (proficient), Bash(intermediate), 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

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**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.