

Joydip Das

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Education

Shahjalal University Of Science and Technology <i>BSc(Engg) in Computer Science and Engineering</i>	January 2018 – February 2023 CGPA : 3.55/4.00
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Research Experience

A Study of Analysing and Modelling Attacks on Blockchain Systems in a Layer-based Approach	2022 – 2023
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[Archive Link](#) / Publication Pending

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
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/ Writing in Progress

Supervisor: Md Forhad Rabbi, Professor (SMIEEE) , Department of CSE, SUST
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 <i>ReliSource Technologies Ltd.</i>	August 2023 – June 2024 Bangladesh
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- 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 <i>All Generation Tech</i>	July 2024 – Present USA (remote)
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- 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

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- 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

- *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), 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

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.