

Jaysurya Arya Ray

Florida, USA | jaysuryaray1998@gmail.com | (352) 7459712 | linkedin.com/Jaysurya85 | github.com/Jaysurya85

Education

University of Florida, USA

Masters of Science in Computer Science

Aug 2027

GPA: 4.0/4.0

Relevant Coursework: Analysis of Algorithm, Advanced Data Structures, Computer Networks

Thadomal Shahani Engineering College, Mumbai University, India

Bachelor's degree in Electronics And Telecommunication Engineering

Jun 2021

GPA: 8.5/10.0

Relevant Coursework: Java, Structured Programming in C, Database Management System, Computer Communication Networks, Microcontrollers, Microprocessors, Data Compression and Encryption

Technical Skills

Programming: Java, Python, Rust, C, JavaScript, TypeScript

Web Development: Spring Boot, Selenium, Django, ReactJs, SolidJs, Flutter, HTML, CSS, Docker

Databases: SQL, Redis

Operating Systems: Linux (Ubuntu, Manjaro), Windows, macOS

Tools: Wordpress, Git, Vim, Visual Studio Code, PyCharm

Professional Experience

Infosys Limited, India. Specialist Programmer L2 – Strategic Technology Group

May 2024 – Jul 2025

- Engineered and deployed a multithreaded load distribution algorithm in Python that optimized logistic route processing, cutting average computation time from **12s to 3s (75% faster)** within a **microservices-based architecture**
- Developed and deployed a background queue server in Python that handled heavy computations asynchronously, **improving scalability** and transforming a **previously freezing application into a reliable, responsive system**.
- Reduced the processing time of the system by **94%** by implementing an optimized algorithm in java for data calculation
- Integrated services into **Jenkins CI/CD pipelines**, automating build, test, and deployment workflows.

Infosys Limited, India. Specialist Programmer L1 – Strategic Technology Group

Sep 2021 – May 2024

- Implemented a Redis caching layer that reduced API response times by **65%** and improved system throughput to handle **5k+ requests/sec**
- Built a token-based authentication system in Java, integrating with a third-party validation API, enabling **secure access for 1k+ daily users** and reducing authentication failures by **40%**
- Architected a database-driven framework in Python that auto-generated new UI screens, reducing manual testing effort by **30+ hours/month** and cutting release times by **half**

Projects

P2P File Sharing System

Java

github.com/Jaysurya85/P2PFileSharing

- Implemented a custom TCP-based peer-to-peer file sharing system supporting concurrent uploads/downloads and chunked file transfers.
- Designed and built a proprietary message protocol for peer discovery, file requests, and piece verification to ensure reliable data exchange.
- Leveraged multithreading and concurrency control to handle multiple simultaneous peer connections efficiently.

Redis Clone (Systems Project)

Rust

github.com/Jaysurya85/custom_redis_rust

- Implemented a Redis clone in Rust with in-memory key-value storage, expiration, and persistence features
- Designed and built a custom request/response parser to handle Redis Serialization Protocol (RESP), enabling reliable command execution
- Crafted this project to gain hands-on systems programming experience in Rust, deepening understanding of memory management, concurrency, and low-level backend design

Competitive Programming

Java/Rust/Python

codeforces.com/profile/jaysuryaray1998

- Solved **700+** algorithmic problems on Codeforces (Specialist, 1400+ rating).