

MAYANK GOVILLA

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Education

Worcester Polytechnic Institute (WPI) | Worcester, MA

May 2023

Bachelor of Science in Computer Science and Robotics Engineering (**GPA: 3.93/4.0**)

Related Courses: Software Engineering, Data Structures, Operating Systems, Algorithms, Databases

Certifications: AWS Solutions Architect Associate

Sep 2021

Languages & Frameworks:

- JavaScript, Go, Python, Java, C/C++, React, Git, Bash, Docker, GraphQL, Postman, Flutter

Professional Experience

Software Engineer | Jahnel Group | Schenectady, NY

Jun 2021 – Present

- Created party planning web application utilizing React, GraphQL, and Express
- Developed RESTful microservice in Go to model a file system in CockroachDB with a closure table. It exposed methods for CRUD operations where update and delete affect the whole file subtree.
- Decoupled system of 4 microservices to comply with best practices
- Automated documentation and test generation with Swagger tools to save 20+ hours of work
- Managed integration tests in Postman and refactored error messages to increase dev efficiency
- Presented sprint progress every 2 weeks to the larger workstream of 50+ people

Automation Engineer | Satellite Internet Lab | WPI

Mar 2021 – May 2021

- Automated throughput testing in the remote environment through bash scripts
- Conducted tests with the satellite setup to compare QUIC and TCP in long RTT environments

Lead Software Engineer | BW Hospital Navigation App | Remote

Jan 2021 – Mar 2021

- Created indoor navigation desktop application with JavaFX and the Google Maps API
- Reviewed 100+ pull requests with feedback and kept team on track with daily scrum meetings
- Implemented A* Algorithm in Java with streams for efficient pathfinding
- Incorporated singleton and observer design patterns and Guice for dependency injection

Intern | Harmoni BioSolutions | Remote

Jun 2020 – Aug 2020

- Adapted Python script to analyze Next Generation Sequencing data 5x faster than the existing solution using multiprocessing, saving over 80 hours per analysis
- Migrated the existing data pipeline to the cloud with Terra

Additional Experience

Teaching Assistant | Systems Programming | WPI

Aug 2021 – Present

- Lead students through exercises to learn concepts of C/C++ and test-driven development

Goatbook App | Hack@WPI

Jan 2021

- Created subscriber based social media app in Flutter over the course of 36 hours
- Designed real-time messaging system with a NoSQL database (Firestore) with group chats
- Integrated Google Sign In through Firebase to access user photo and email

KD Tree | Algorithms | WPI

Apr 2020

- Implemented a k-d tree and its nearest neighbor algorithm in **Java**
- Profiled nearest neighbor performance with 200,000+ nodes: 600x increase over brute force

Activities

New Member Educator | Sigma Pi Gamma Iota | WPI

Jan 2021 – Mar 2021

Field Technical Advisor | FIRST Tech Challenge | NJ

Summers 2018-20