Shubham Maheshwari

Los Angeles, CA | (213) 551-6943 | shubham.maheshwari2@gmail.com | LinkedIn | GitHub | Portfolio | Leetcode

EDUCATION

University of Southern California | Master of Science in Computer Science

Aug 2022 - May 2024

Data Structures & Algorithms, Machine Learning & AI, Parallel Computing, Web Development, Applied NLP

GPA: 3.87/4.0

Manipal University Jaipur | B.Tech. in Computer Science Engineering

July 2018 – July 2022

Object Oriented Programming, Database Management, Computer Architecture, Networks, Operating Systems

GPA: 9.5/10.0

SKILLS

Languages & DBs: Python, C/C++, Java, JavaScript, SQL, HTML/CSS, TypeScript, MySQL, MongoDB, PostgreSQL

Web Frameworks: FastAPI, Flask, React, Spring Boot, Node.js, Django, Angular, REST

Tools & Technologies: Git, Linux, Docker, Kubernetes, AWS, Jenkins, Auth0, Jira, Agile, Selenium, Kafka, Apache Storm

Relevant Skills: Machine Learning, Parallel Computing, Distributed Systems, Cloud Computing, DevOps, System Design

WORK EXPERIENCE

Arista Networks | Software Engineer Intern

May 2023 - Aug 2023

- · Optimized CI/CD pipeline by updating Jenkins and GitHub Actions, resulting in a significant increase in team productivity
- Migrated unit tests framework from Robot to Python pytest, reducing cross-repository dependencies and enhancing workflows
- · Accelerated Jenkins pipeline execution by 16% through strategic test framework migration and comprehensive optimization

Flipkart | Software Developer Intern

Jan 2022 - Jun 2022

- Redesigned a scalable communication system in **Scala**, updating 4 **Apache Storm** topologies and **Apache Kafka Pipelines**, while strengthening the security and handling of sensitive data
- Enhanced legacy codebase by extending the archival system for message storage, resolving bugs & improving system reliability
- · Led cross-functional teams in adopting the new system architecture, crucial for impending IPO readiness

CrowdShakti | Backend Developer Intern

Aug 2021 - Dec 2021

- Refactored the backend architecture of a career portal using GraphQL, FastAPI and Auth0, significantly improving scalability
 and authentication to support over 50 companies
- Developed automated data scraping pipelines leveraging Python Selenium and Playwright libraries, achieving 95% efficiency
- · Engineered backend with **RESTful APIs** for advanced facial recognition albums using DeepFace, boosting user experience

PROJECTS

Inventory Management 2 | FastAPI, React, Auth0, Docker, PostgreSQL, AWS

May 2024 - Aug 2024

- Engineered a scalable microservices-based web application with 3 backend services, containerized using **Docker**, stored in **ECR**, and orchestrated on **AWS ECS**, leveraging **Secrets Manager** for credential storage and **S3** for environment file management
- Utilized Lambda functions for API composition, API Gateway for routing, and RDS (PostgreSQL) as the database service
- Designed and deployed the front end with **React** on **AWS Amplify**, secured with **OAuth2.0** and **OIDC** via **Auth0**

Parallel Stock Trading System ☑ | C++, Multithreading, Parallel Programming

Sep 2023 – Dec 2023

- · Created a high-performance parallel stock trading system with a smart order routing algorithm to minimize latency
- Constructed a multi-threaded architecture with thread pooling, utilizing the producer-consumer problem model
- Reduced latency by 50ms via parallelization in algorithm and boosted order execution efficiency by 64% through thread pooling

Event Finder 🗹 | Flask, Node.js, Express, React, GCP

Jan 2023 - May 2023

- · Developed a full-stack event discovery web application, integrating TicketMaster, Google Maps, and Spotify APIs
- · Implemented responsive UI design principles to ensure seamless user experience across various devices and screen sizes
- Built web versions with **React** and Android app with Java, deployed on **GCP App Engine** with various backend frameworks

Course Registration System 🗹 | Java, MySQL, DropWizard, Jersey, GitHub, SDLC

Jan 2022 - Feb 2022

- · Streamlined course registration, payments for students, grading for professors, and easy access to grade reports
- Followed the Software Development Life Cycle from Project Planning to UML diagrams, then to development and testing
- · Adhered to industry standards in coding practices, unit testing, and Git, ensuring high-quality code and collaboration

ACHIEVEMENTS

- Ranked 1040th globally and among top 100 in the US at Meta HackerCup Round 2
- Secured 176th rank out of thousands of participants in Leetcode Weekly Contest 406
- · Achieved 3rd place at a Multimodel AI Hackathon by Twelve Labs and AWS
- Won 1st position in several inter-university coding competitions