# Umar Mohammad

+1 (404)-203-9846 | mohmdd.umar@gmail.com | ⬆ LinkedIn | ⬆ GitHub | ⬆ Portfolio

## Education

**Georgia State University** — Aug 2023 – Dec 2024(Expected)
*Master of Science in Computer Science* — Atlanta, GA

**Vel Tech University** — Jul 2017 – May 2021
*Bachelor of Technology in Computer Science and Engineering* — Chennai, TN

## Experience

**Graduate Teaching Assistant** — Aug 2023 – Present
*Georgia State University* — Atlanta, GA
- Instructed 240 undergraduate students across four sections in Data Structures and Algorithms.
- Created coding challenges, projects, and guided students to solve complex problems and recorded video lectures.

**Software Engineer** — Jul 2021 – May 2023
*Basketo Finance (Startup) at T-Hub Incubation Center* — Hyderabad, TG
- Founded a platform for retail investors with minimum of $10,000 in annual transactions. Facilitated diversified crypto investments and real-time tracking using React, Material UI, Mongo DB, and Node.js with Express.
- Integrated the platform with the blockchain through Ethers for Ethereum interactions, along with Coinbase and MetaMask wallets, resulting in a 40% increase in user security and enabling digital asset management.
- Optimized asset allocation and portfolio composition by 20% using quadratic programming algorithm, and provided accurate historical performance via user-friendly dashboard by using time series analysis techniques.
- Orchestrated Agile methodologies with weekly sprints. Managed unit testing for a codebase with over 50,000 lines, promptly resolved 27 critical bugs, and executed 200+ GitHub deployments using CI/CD pipelines.

**Software Engineer Intern** — Jan 2021 – Jun 2021
*Capgemini* — Hyderabad, TG
- Developed a Healthcare Scheduling Application, allowing 300+ patients to book appointments with 50+ doctors.
- Executed geospatial indexing for doctor locality sorting and optimized search results with Term Frequency Inverse Document Frequency, leveraging machine learning techniques for enhanced search relevance.
- Implemented a Priority Queue (Heap)-based system to manage reminder and notification features for 200+ upcoming appointments. Integrated the platform with the Razorpay payment gateway, for secure transactions.
- Achieved a 40% improvement in scheduling efficiency by enabling Google Calendar synchronization. Enhanced user experience through the design of user-friendly interfaces for rating and reviewing doctors.

## Projects

**ElectionGuard - Blockchain-Powered Voting System** | *Node.js, Vue.js, MongoDB* — Jun 2020 – Dec 2020
- Built a system that has voter registration for 3000+ Vel Tech students and facilitated voting for 800+ participants. Used Least Connections Algorithm to send direct requests to the server with the fewest active connections.
- Engineered ECDSA encryption for user data protection, while also utilizing Distributed Systems for efficient handling of user data. Generated 1000+ QR codes and structured JSON files using GETH Ethereum software.
- Utilized ethers.js for seamless Ethereum interaction in the voting process.

## Technical Skills

**Languages**: Java, Python, JavaScript, Solidity, Golang, PHP, C, C++, C#, R, Bash, Ruby, TypeScript, Kotlin
**Web Frameworks**: React, Node.js, Tailwind, Express.js, Ethers.js, Next.js, Material UI, Django, Flutter, Ruby on Rails
**Backend API**: Spring boot, RESTful Web Services, Spring Security, Microservices, Selenium, JUnit, TensorFlow
**Databases**: MySQL, PostgreSQL, Oracle, MongoDB, Cassandra, Google BigQuery, Amazon DynamoDB
**Developer Tools**: Git, Kubernetes, Docker, AWS, Google Cloud Platform, Azure, Postman, Jenkins, JIRA, SonarQube

## Open source contributions and Achievements

- Open source contribution - Worked on LibreHealth, an open-source healthcare project.
- Hackathon Winner - Best solution for Interoperability - $25,000 LUXE NFT (North Division) by Hack the Inevitable.
- Hackathon Winner - Most Creative Use Case for the Invoices API by Square: Build What's Possible.
- Achieved a 5-star rating on CodeChef and HackerRank, consistently ranked within the top 1000 in Codeforces contests.
- Successfully solved 400+ LeetCode problems and participated in Google's Kickstart, Hashcode coding challenges.