

Vishal Gandla

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Education

Master of Science in Computer Science, August 2023 - May 2025

University of Georgia, Athens, CGPA: 4.0/4.0

Bachelor of Technology in Electronics and Computer Engineering, July 2016 – May 2020

Vellore Institute of Technology University, Chennai, CGPA: 3.37/4.0

Skills

Programming Languages: Java, Python, JavaScript, C, C++, TypeScript, Shell Scripting, R, CMake, Perl.

Backend: Spring Boot, Node.js, Express.js, Django, FastAPI, GraphQL(Apollo Server), gRPC (Connect RPC).

Frameworks and Libraries: ReactJS, AngularJS, Next.js, Spring Security, Spring Data JPA, PyTorch, RxJS, Redux, AWS S3 SDK, Firebase, Sequelize ORM, Muler, Stripe, Bootstrap, Hibernate, Jenkins, JUnit, JavaScript Canvas, J2EE, Chart.js.

Databases: PostgreSQL, MySQL, MongoDB (NoSQL), Redis, Sybase SQL Server, CockroachDB.

Software & DevOps Tools: Docker, Kubernetes, Terraform, Grafana, Kafka, Postman, Git, GitLab CI/CD, GitHub Actions, Google Analytics, Vite, Webpack.

Cloud Services: Amazon Web Services, Microsoft Azure, Google Cloud (AWS EC2, AWS RDS, AWS S3, AWS Route 53, AWS VPC, AWS IAM, CloudFront, ECR, CloudWatch, GCP Kubernetes Service, GCP Container Registry, DNS Zones, Virtual Machines, Certificate Manager).

Other Skills: Effective Communication, Team Collaboration, and Leadership.

Work Experience

Web developer – Anja Health | Cord Blood Banking, Los Angeles, California | August 2025 – Present

Technologies: Next.js, ReactJS, GraphQL, Google Cloud Functions, Stripe, Airtable, Firebase, JavaScript, TypeScript.

- Collaborating in a fast-paced startup environment to design, build, and deploy new features for the Anja Health website, improving customer experience and engagement. Added new features, including the ability to enable multiple child pickups and health form submissions under the same account, enhancing flexibility for families using the platform.
- Debugged and resolved 11 production issues reported by users, including fixing type errors, updating labels (e.g., *Stem Cell Key* → *Stem Cell Certificate*), and adding UI enhancements to a billing section.

Research Assistant – University of Georgia, Athens, Georgia | August 2024 – May 2025

Network Monitoring System: Developed a real-time Python tool to analyse live PCAP traffic from 100+ devices (40 active), extracting TCP/UDP/DNS metrics. Visualized insights via Grafana dashboards and a MySQL backend, with a custom GUI for PCAP analysis and fingerprinting.

Technologies: Python, Java, Docker, MySQL, Grafana, Scapy, Pyshark, Tkinter.

Software Engineer – Wipro Limited, Bangalore, India | June 2020 – May 2023

Huawei: Developed a shopping website and implemented data analytics as part of a web development project.

Technologies: Java, JavaScript, TypeScript, PostgreSQL, HTML, CSS, ReactJS, AngularJS, Spring Boot, AWS Cloud, Google Analytics, Tag Manager

- Designed and hosted an interactive shopping prototype on AWS Cloud featuring 30 products for Huawei Technologies using ReactJS, Spring Boot, and PostgreSQL, delivering a seamless and user-friendly experience.
- Integrated Google Tag Manager into a Huawei website prototype with 50 tags, enabling accurate tracking of critical metrics such as page views, product engagement, and session spending.
- Configured data-tracking variables, tags, and triggers within Google Tag Manager, feeding data into three Google Analytics dashboards to provide actionable insights for optimizing the user experience.

Union Bank of Switzerland: Migration of GUI Mortgage Trading System to Microsoft Azure Cloud

Technologies: C, Java, Bash, Perl, Azure VM

- Directed the migration of 130+ C binaries, 600+ shell scripts, and Java jar files for a GUI Mortgage Trading system from Solaris Unix servers to Microsoft Azure, Red Hat Enterprise Linux, covering 1,800 jobs in development, QA, and production for UBS, Europe's 5th largest bank.
- Leveraged the Software Development Life Cycle to refactor code and resolve over 2,000 migration issues, significantly improving system stability, performance, and reliability, while utilizing version control and ensuring consistent GitLab CI/CD automated deployments.
- Trained three team members on project architecture, JIL, C, and shell scripting, embedding Agile practices, and incorporating unit and integration testing to ensure timely completion of project milestones and contributed to existing documentation.

Notable Projects (Out of 25+ personal projects)

Car rental app: Built a full-stack car rental application with role-based access for customers and rental providers, supporting car listings and location management, deployed on GKE; achieved average API response time of 120 Ms.

Technologies: Java, Spring Boot, Maven, Spring Security, ReactJS, PostgreSQL, Amazon S3, Docker, Kubernetes, JMeter, JDBC.

Recipe sharing application: Provisioned a Dockerized recipe-sharing app where chefs can log in and share recipes using Spring Boot microservices, ReactJS, and PostgreSQL on GKE, with media stored in S3, achieving 99.95% uptime.

Technologies: Java, Spring Boot, Maven, Spring Security, ReactJS, PostgreSQL, Amazon S3, Docker, Kubernetes, Route 53, Certificate Manager.

Full-stack dining application on Kubernetes: Orchestrated the deployment of a Dockerized full-stack dining application using Spring Boot microservices, AngularJS, and MySQL, ensuring environment consistency and high availability of 99.95% on Azure Kubernetes with Helm and Minikube.

Technologies: Java, Spring Boot, Maven, AngularJS, MySQL, Docker, Kubernetes, Route 53, Minikube, REST APIs.

Relational algebra operations implementation: Implemented relational algebra operations (Select, Minus, Union, Join) in Java using data structures and algorithms, enhancing database indexing, resulting in up to a 100-fold speed improvement for certain operations and even greater gains for others.

Technologies: Java, Linear Hashing, B+ Tree indexing.

Movie booking system: engineered a feature-rich movie booking system supporting ticket management, showtimes, and order processing with an average response time of under 2 seconds.

Technologies: ReactJS, Express.js, PostgreSQL, REST APIs, Sequelize ORM, JWT authentication.

Expense tracker web app: Created a responsive Expense Tracker app using ReactJS and ExpressJS, delivering a seamless user experience.

Technologies: ReactJS, Express.js, Terraform, MongoDB, AWS EC2, AWS VPC, Route 53, NGINX, JWT Authentication.

LLM-Assisted Fuzzing of Matter IoT Devices: Built GPTFuzz, a GPT-4 tool testing Matter smart bulbs, validating device stability.

Technologies: ChatGPT, LLM, Matter SDK, chip-tool, BLE, Wi-Fi.

Convolutional Neural Network classifier: Constructed a CNN classifier in PyTorch for CIFAR-10, achieving 80% test accuracy and 97% training accuracy over 10 epochs with mini-batch processing, batch normalization, and dropout.

Technologies: Python, PyTorch.

Certifications

Azure Fundamentals (AZ-900) - Issued by Microsoft | December 19, 2022

React The Complete Guide - Issued by Udemy | November 5, 2024