# 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, NodeJS, ExpressJS, Django.

Frontend Tools and Libraries: ReactJS, AngularJS, Spring Security, Spring Data JPA, PyTorch, RxJS, Redux, AWS S3 SDK, Sequelize ORM, Multer, JavaScript Canvas, Bootstrap, Hibernate.

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

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

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, Leadership

### **Work Experience**

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

- Designed an interactive shopping prototype featuring 30 products for Huawei Technologies using ReactJS, HTML, CSS, JavaScript, and Java, 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.

## Notable Projects (Out of 24 personal projects)

Recipe Sharing application: Deployed 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.

Fullstack 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.

Relational algebra operations implementation: Implemented relational algebra operations (Project, Select, Minus, Union, Join) in Java, enhancing database management and 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, ExpressJS, PostgreSQL, Sequelize ORM, JWT authentication.

**Todo List web app:** Created a responsive ReactJS and ExpressJS backend for a Todo List application, delivering a seamless user experience. **Technologies:** ReactJS, ExpressJS, MongoDB, AWS EC2, AWS VPC, Route 53, NGINX, JWT authentication.

**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.

**portfolio website:** Built a responsive portfolio website using ReactJS, attaining 100 in Lighthouse metrics for Performance, and 83 in SEO. **Technologies:** ReactJS, cross-platform, AWS S3, AWS CloudFront.

**Café management system:** Developed a café management website and improved load time by 30% using 3NF for database optimization. Added features for order processing, inventory, and billing to enhance efficiency.

Technologies: Python, Django, PostgreSQL.

HTTPS download accelerator: Built an HTTPS download accelerator in C, using HTTP/1.1 'Range' and TLS, supporting 10 parallel connections. Technologies: C, OpenSSL, Makefile, multithreading.

# **Certifications**

Azure Fundamentals (AZ-900) - Issued by Microsoft | December 19, 2022 React The Complete Guide - Issued by Udemy | November 5, 2024