PRATEEK CHOUDAVARPU

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https://leetcode.com/prateek10201/| https://github.com/prateek10201 | https://peerlist.io/prateek10201

EDUCATION

Clemson University — Clemson, SC
Master of Science, Computer Science, ***CGPA-4/4*** — 08/2023 - 05/2025
Courses: *Machine Learning, Foundations of Software Engineering, Cloud Computing Architecture, Network Technologies Security*

Osmania University — Hyderabad, India
Bachelor of Engineering, Computer Science, and Engineering, ***GPA-8.4/10.0*** — 08/2018- 07/2022

PROFESSIONAL EXPERIENCE

Clemson University, *Graduate Teaching Assistant* — 01/2024 - 05/2024

- Guided over **60** students in the **'Introduction to Software Engineering'** course; facilitated hands-on learning in building **microservices** using **C#** within the **ASP.NET** framework, enhancing practical skills and project outcomes.
- Key focus areas encompass the **Software Development Life Cycle**, **Agile Methodologies**, **Object-Oriented Programming**, ASP.NET, **Git**, and **Azure Cloud**.

Cognizant Technology Solutions, *Programmer Analyst Trainee* — 07/2022 - 06/2023

Client - PayPal / Migration Projects

- Optimized **49** legacy **XML** scripts into **Python** scripts for the **PayPal Fact Development** and **GCP Fact** projects, enhancing the performance of these Fact Modules and reducing data retrieval processing time by **40%**.
- Orchestrated the continuous integration and deployment of these **49** Python scripts into **GCP buckets** via **Jenkins**, facilitating automated updates and improving deployment efficiency by **30%**.
- Restructured the **audit module** using **DataFrames** in **PySpark**, improving Python script job status tracking. Enhanced functionality reduced job tracking time by **30%** and streamlined monitoring for over **400** scheduled jobs every cycle.
- Leveraged **BigQuery** to test code on **50** sample scripts and further implemented in **DataFrames**, achieving a **30%** reduction in debugging time.

Player Orbit, *Backend Developer Intern* — 01/2022 - 03/2022

- Implemented end-to-end feature development for an **Authentication Microservice** using **Spring Boot** and **MongoDB** and streamlined **REST API** for seamless frontend backend communication, which now processes over **5,000** authentication requests daily.
- Enhanced user experience by reducing API response time from **1.3** seconds to **1** second, achieving a **33.3%** decrease in latency and boosting performance.
- Integrated **JWT** for secure and efficient user authentication and **BCrypt** for robust password hashing and enforced **SHA256** to ensure data integrity, enhancing the system's security.

UNIVERSITY PROJECTS

SfUIT (Software As A Service, Internet Of Things, SpringBoot, Java, PostgreSQL) | Link

- Developed a robust **Backend API** using **Java** with the **Spring Framework** for the *Smart Fabric Using the Internet of Things* **(SfUIT)** prototype, a **SaaS** solution designed for continuous health monitoring of individuals.
- Engineered closely with a team of **5** to design and develop an ***MVP*** that features **5** distinct, customizable solutions, all built on a unified software platform.
- Conducted a survey that led to over **500** positive reviews, resulting in a **25%** increase in product visibility and user acquisition.

Interview Tracking System - Backend API (Java, SpringBoot, MySQL, Postman) | Link

- Architectured, coded and deployed a robust **Backend RESTful API** from scratch, optimizing **CRUD** operations for recruitment tasks, appointments and feedback loops; improved candidate response times by **50%**, enhancing overall user experience.
- Leveraged **JUnit** for end-to-end testing of backend API, achieving **95%** code coverage and validating functionality with solid error handling.
- Integrated the **Backend API** with the **Async Library**, reducing API loading time from **2** seconds to **0.8** seconds, resulting in a **29%** improvement in efficiency.

Diabetic Retinopathy Screening Using CNN (Deep Learning, Python, Numpy, Pandas, Keras, SkLearn, MatPlotLib)

- Curated a comprehensive dataset of Fundus Images associated with diabetic patients by harnessing the **ATMOS** dataset available on Kaggle, demonstrating strong proficiency in data acquisition and curation.
- Employed **RESNET 18**, a CNN architecture on the dataset split into two parts, with **80%** used for training and **20%** for testing. This architecture utilizes ImageNet to pre-train a deep neural network.
- Pioneered exceptional outcomes utilizing the **ResNet 18** Architecture, achieving an impressive prediction accuracy of **84.3%**.

SKILLS SUMMARY

Programming Languages and Web Development: Java, Python, C++, C, Javascript, HTML, CSS.
Database: MySQL, PostgreSQL, MongoDB, BigQuery**.**
Frameworks & Tools: SpringBoot, PySpark, ASP.Net, React, REST, Postman.
Machine Learning, Deep Learning & AI: Pandas, Numpy, Keras, CNN, ResNet18 Architecture, SkLearn.
Cloud Computing Platforms & Containerization Tools: AWS EC2, Azure, GCP Bucket, Docker.

CERTIFICATIONS AND ACHIEVEMENTS

- Earned **Microsoft Azure Cloud Fundamentals certification (AZ-900)** with a score surpassing **70%**. Link
- Achieved certification in **Java Programming** from *Vanderbilt University* and applied this experience to more than **5** projects. Link
- Attained the second position out of over **5,000** Assistive Technical Summit 2.0 participants hosted by the Indian Government. Link