VARSHIL SHAH

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Education

Manipal Institute Of Technology   **July 2019 - July 2023**
B.Tech in Computer and Communication Engineering   *CGPA: 8.22*

Technical Skills

Languages: Python, Java, C, C#, HTML/CSS, JavaScript, Typescript, SQL, C++
Developer Tools: VS Code, Git, SonarQube, Azure, AWS, Eclipse, Prefect, Postman, Bitbucket, Tableau, JIRA
Technologies/Frameworks: Power BI, Kafka, Docker, Kubernetes, Django, React Js, SASS, PyTorch, TensorFlow

Experience

Western Digital   **October 2023 – Present**
Software Engineer   *Bangalore, Karnataka*
- **Designed and developed scalable backend microservices** using **Python** and **Golang**, architecting **RESTful APIs** for seamless UI integration and reducing response latency by **25%**.
- **Optimized MySQL databases** by redesigning schemas and tuning complex queries for analytics workflows, improving data retrieval performance by **30%** while ensuring integrity at scale.
- **Integrated SonarQube with Jenkins CI/CD pipelines** for Python and Go services, implementing custom quality gates and enabling automated AWS deployments to reduce security vulnerabilities by **25%** and accelerate release cycles.

Western Digital   **January 2023 – June 2023**
Software Developer Intern | **ML, Python, MongoDB, Bit-bucket**   *Bangalore, Karnataka*
- **Developed** and **optimized** a regression-based simulation model for HDD testing, improving prediction accuracy from 73% to 86% via advanced preprocessing and model tuning.
- Implemented **parameter optimization** algorithms and contributed to the deployment of a scalable, maintainable ML model in a production-like environment.
- Participated in UI migration from **JavaFX/WPF** to a web-based stack (React + REST APIs), improving accessibility and maintainability.

Projects

Driver Drowsiness Detection System | *Deep Learning, TensorFlow, and OpenCV*   **April 2021**
- **Developed** a Driver Drowsiness Detection System using **Deep Learning, TensorFlow, and OpenCV**, implementing real-time eye state classification to alert users against fatigue-related risks.
- **Trained a CNN model** on a dataset of **5,000 eye images**, classifying open and closed eye states with high accuracy to enhance model reliability and responsiveness.
- Integrated live camera feeds and TensorFlow inference to alert drivers during drowsy states, enhancing safety through automation.

College Research Portal | *JavaScript, Typescript, React Js, Django, Azure, HTML/CSS*   **August 2021**
- **Designed** and **developed** a portal that publicizes the **research projects** so that interested students from all over college can connect with the professors in charge.
- Used **Google Meet API** to **schedule meetings** between students and teachers from the portal.
- Created a **MySQL Database** to store the details of the projects issued by the Professor.

Achievements

- Secured **1st position** in a 2-day Hackathon organized by Mentorsity among **250** members.
- Secured **1st position** in a Web Development competition organized by IEEE in 2022 among **200+** members.
- Stood in the **top 10** out of **500+** members in a Web Development Competition held by VJTI college.

Position of Responsibility

Lead Developer, SonarQube Integration Project   **August 2024 - December 2024**
- **Successfully led the end-to-end integration of SonarQube**, enhancing **code quality** and security compliance across multiple teams while **cross-collaborating** with various departments to ensure seamless adoption of **automated code analysis** within **CI/CD pipelines**.

Treasurer & Web Development Head, ISTE Manipal   **August 2021 - September 2022**
- **Led web development training sessions for 40+ students**, mentoring them in **modern web technologies**, while **managing fundraising and budget allocation**, organizing events and sessions to ensure smooth club operations.