Vishwas Patel

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Summary

Graduate student pursuing Master's in Computer Science at Santa Clara University with hands-on experience building scalable backend systems and cloud-native data pipelines. Skilled in FastAPI, Python, Docker, GCP, AWS, Kafka, and SQL, with experience developing distributed ingestion workflows and real-time analytics dashboards.

Experience

Software Solutions Specialist – Student Worker
Sept. 2025 – Present

Santa Clara University | Python, Pandas, GCS, Grafana, Tableau, REST APIs, Data Pipelines, Automation *Santa Clara, CA*

- Built a cloud-based POS data ingestion pipeline using **Python** and **Google Cloud Storage** to collect and organize daily transactional datasets, powering **Grafana** dashboards for revenue trends and operational performance—boosting reporting efficiency and improving data accuracy by **90%**.
- Developed internal **FastAPI** and **Streamlit** tools for real-time search and analysis of POS and access-control logs, reducing incident-resolution time by **40%** and improving operational visibility for Auxiliary Services staff.
- Created **Tableau** dashboards and custom analytics reports to support meal-plan planning, pricing strategy, and event operations, delivering insights across **$20M+** in annual campus transactions.

Software Engineer Intern
Aug. 2023 – Feb. 2024

Shaip | FastAPI, Python, Docker, Google ASR, OpenAI Whisper, GCP *Ahmedabad, Gujarat*

- Built and tested **RESTful APIs** using **FastAPI** to handle audio uploads, start transcription jobs, check job status, and return results to clients. Used `asyncio` to process concurrent requests efficiently, reducing response delays under load.
- Designed and deployed a **cloud-native**, Dockerized pipeline for multilingual audio transcription by integrating Google Speech-to-Text and OpenAI Whisper; evaluated transcription quality using **WER** and **BLEU** metrics.
- Implemented resumable audio uploads with file type and size validation using **aiofiles** and asynchronous background tasks, enabling non-blocking handling of large file transfers.

Data Science Intern
Feb. 2023 – Apr. 2023

SkyInfo Solutions | Python, Dask, PySpark, SQLAlchemy, Apache Airflow *Ahmedabad, Gujarat*

- Built data pipelines using **PySpark** and **Dask** to process **500K+ rows** of customer logs and sales data, **boosting ETL throughput by 20%** and saving **15 hours** of processing time per week.
- Developed automated ETL pipelines in **Apache Airflow** for daily extraction, transformation, and loading of structured/unstructured data into analytical models.
- Extracted behavioral and transactional features from product usage data to support predictive modeling, improving model accuracy by **12%**.

Projects

Voice-Controlled Virtual Assistant
 GitHub

Python, SpeechRecognition, pyttsx3, gTTS, Wikipedia API, OpenWeatherMap, NewsAPI

- Built a voice-activated assistant in **Python** using **SpeechRecognition** and **gTTS**, supporting 20+ spoken commands with 90% recognition accuracy.
- Established integration of real-time data feeds, including **Wikipedia**, **OpenWeatherMap**, and **NewsAPI**, processing **100+** daily user requests with keyword-based intent parsing.
- Deployed an offline voice-controlled system using **speech recognition**, **pyttsx3**, and custom commands for **hands-free control** of volume and brightness.

WeHack: Hackathon Management Platform
 GitHub

React (TypeScript), Spring Boot, MySQL

- Instituted secure role-based access control (**RBAC**) using **Spring Security** and **JWT**, delineating permissions and workflows for organizers, participants, and judges; decreased unauthorized data access incidents by **90%**.
- Developed modular **RESTful APIs** to manage events, submissions, teams, and threaded comments; optimized database interactions using **MySQL** and tested endpoints with **Postman**.
- Constructed role-based **React interfaces** utilizing **React Router** to streamline event dashboards and efficient project submissions, enhancing team collaboration and improving user satisfaction ratings by **20%**.

Education

Santa Clara University
Santa Clara, CA

Master of Science in Computer Science *Sept. 2024 – June 2026*

Gujarat Technological University
Gandhinagar, India

Bachelor of Engineering - Computer Engineering *July 2019 – May 2023*

Technical Skills

Languages: Python, C/C++, Java, SQL, JavaScript, HTML/CSS, Bash (CLI)
Frameworks: Django, FastAPI, Flask, React, Express.js, NodeJS
Developer Tools: Git, GitHub, Docker,Kafka, Google Cloud Platform (GCP), AWS (S3), Azure, Linux, VS Code, PyCharm, IntelliJ
Libraries: Pydantic, SQLAlchemy, Pandas, NumPy, Matplotlib, Peewee, Dependency Injection,Scikit-learn, TensorFlow, OpenAI Whisper, Data Pipelines, Automation
Visualization & Analytics: Grafana, Tableau
Databases: MySQL, PostgreSQL, AWS RDS, MongoDB