

# VISHWANATH A SARDESHPANDE

Software Engineer

Berlin, Germany

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## Professional Summary

Master's graduate in Computer Science (Big Data & AI) with hands-on experience in backend service development, machine learning model training and deployment, and end-to-end pipeline observability. Adept at building scalable systems on GCP, working with graph neural networks and vision-language models, and delivering reliable, well-monitored production pipelines.

## Technical Skills

**Languages:** Python, JavaScript, SQL

**Frameworks:** Django, FastAPI, NextJS

**Database:** PostgreSQL, MongoDB, MySQL, Redis

**Cloud & DevOps:** AWS, GCP, Docker, Kubernetes, Github Actions

**Observability & Visualization tools:** Datadog, Looker Studio, Power BI

## Education

### Masters in Computer Science Focus on Big Data and AI

SRH University of Applied Science

April 2024 – March 2026

Berlin, Germany

### Bachelors of Engineering Information Science

Sri Krishna Institute of Technology

August 2018 – March 2022

Bengaluru, India

## Experience

### Machine Learning Engineer - Intern

Hitachi Rail

September 2025 – February 2026

Berlin, Germany

- Worked on research and prototyping of graph neural network models for structured data problems.
- Supported model training, evaluation, and result analysis using PyTorch Geometric.
- Contributed to experiment documentation and reproducibility practices within the research team.

### Backend Engineer - Intern

Wayfair LLC

August 2024 – April 2025

Berlin, Germany

- Designed and operated Image Annotation pipelines using Vertex AI Pipelines on GCP, implementing DAG-driven orchestration and parameterized workflows.
- Developed, migrated, and maintained Airflow DAGs, improving workflow reliability, observability, and operational stability.
- Built monitoring and observability dashboards using Datadog and Looker to track pipeline health and execution behavior.

### SAP ABAP Developer

Kennametal Shared Service Pvt. Ltd.

May 2022 – March 2024

Bengaluru, Karnataka

- Worked on SAP ABAP developments for manufacturing and supply-chain workflows, supporting operational reporting and integrations.
- Implemented OData-based interfaces for interoperability between SAP and cross platform application.
- Supported warehouse automation initiatives, including assistant-based tooling for operational queries and task execution.

## Master Thesis & Projects

### Autonomous Driving System using Vision Language Models | *FastAPI, Carla, Unsloth, PyTorch*

- Designed an end-to-end data and training pipeline in simulation, generating labeled driving data using rule-based teacher policies for supervised and evaluative learning.
- Trained and deployed a Vision-Language Model (VLM) for high-level perception and decision-making in a closed-loop autonomous driving setup, achieving real-time inference in simulation.
- Built modular AI system components for data ingestion, model inference, and trajectory prediction, enabling reproducible experiments and systematic ablation across diverse driving scenarios.

### Real-Time Crypto Trading Signal Platform | *Python, Kafka, FastAPI, Redis, InfluxDB, Docker*

- Built an event-driven microservices platform that ingests live cryptocurrency data via WebSocket, processes it through Kafka-connected services for technical indicator computation and strategy signal generation.
- Designed independently deployable containerized services with Kafka as the messaging backbone, using Redis for real-time state caching and InfluxDB for historical time-series storage.
- Developed a live dashboard streaming real-time prices, indicators, and trade signals to users via WebSocket, with full system observability into pipeline throughput and processing latency.