SAKSHI TIWARI

INDIA

9229773926 sakshit9703@gmail.com sakshitiwari2 Sakshi8365

Education

Visvesvaraya Technological University **Dec. 2022 - May 2026**

Bachelor of Engineering in Computer Science *Bangalore, Karnataka*

Technical Skills

Languages: Python, Java, SQL, C, HTML/CSS
Developer Tools: Git, GitHub, VS Code, IntelliJ, Jupyter Notebook, PyCharm
Technologies/Frameworks: TensorFlow, Scikit-learn, Streamlit, NumPy

Projects

VisionX- Real Time Open Vocabulary Object Detection

Tech: Python, PyTorch, YOLOv8, OpenCV, CLIP, NumPy, YAML

- Engineered VisionX, a real-time object detection app integrating YOLOv8 with CLIP for open-vocabulary classification across 500+ curated/custom labels.
- Optimized inference pipeline (ROI filtering, small-box suppression, temporal smoothing), achieving 25 FPS on CPU and reducing mislabels by 30 percent.
- Engineered a config-driven pipeline (YAML) supporting model/label pack auto-loading, reproducible packaging (requirements.txt, .gitignore), and streamlined dataset training.
- Built robust Windows camera capture (DirectShow/MSMF) with GUI fallbacks and headless recording, achieving 10 FPS real-time inference on commodity hardware.

Cloud Cost Dashboard-Real Time Cloud Expense Monitoring

Tech: Python(Flask), Next.js, React, TypeScript, Docker, REST APIs, CI/CD

- Built a cloud cost monitoring dashboard with Flask (backend) and Next.js/React (frontend), enabling real-time visualization of 1M+ daily data points and automated anomaly detection.
- Designed RESTful microservices architecture and deployed with Docker Compose, achieving 30 percent faster scalability and modular system performance.
- Automated data ingestion pipelines and alerting mechanisms, reducing cloud overspend by 15 percent and manual monitoring time by 40 percent.
- Applied CI/CD pipelines and Git-based workflows, boosting deployment efficiency and maintaining a 95 percent plus code reliability rate. Delivered a responsive TypeScript-based UI, improving user engagement and ensuring seamless cross-device experience.

StreamForge - Real Time Crypto Data Pipeline

Tech: Python (asyncio), Kafka/Redpanda, WebSockets, PostgreSQL, Metabase, Docker Compose

- Designed and deployed a real-time data pipeline ingesting 5K+ crypto trades/sec via WebSockets, processing them into 1-minute OHLCV candles, and storing in PostgreSQL for analytics.
- Implemented fault-tolerant Kafka consumers with at-least-once semantics and idempotent UPSERTs, ensuring 100 percent consistency across market data tables.
- Containerized the stack (Kafka, producers, processors, PostgreSQL, Metabase, Kafka UI) with Docker Compose, enabling one-command reproducibility and a simulation mode for offline demos.
- Delivered interactive BI dashboards in Metabase with sub-2s query latency, reducing manual reporting effort by 40 per and powering real-time trading insights.