Samunder Singh

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Bengaluru, Karnataka, India

Professional Summary

Data Scientist with experience in computer vision, deep learning. Proficient in PyTorch, TensorFlow, CUDA, Django, FastAPI, and Flask. Deployed production ML models and built scalable AI pipelines. Open-source contributor with 80+ merged PRs.

Experience

Associate Data Scientist May 2024 – Present
Lincode.ai *Bengaluru, India*

- Developed real-time object detection systems using YOLOv8 and DETR for visual inspection in production
- Built automated image segmentation and OCR pipelines with PaddleOCR, boosting text extraction accuracy
- Developed CLIP-based auto-labeling and anomaly detection workflows optimized for multi-GPU clusters

Data Scientist Intern Jan 2022 – Apr 2022
SmartKnower *Remote*

- Built Tableau dashboard for COVID-19 analytics and deployed XGBoost/SVM spam classifier (F1: 0.96) on Heroku

Open Source Contributions

Open Source Developer Aug 2024 – Present
Keras *Remote*

- Contributed 6 PRs implementing NumPy functions for OpenVINO backend

Open Source Developer Jun 2023 – Present
Unify.AI *Remote*

- Contributed 80+ PRs to Ivy ML framework across JAX, PyTorch, TensorFlow, and PaddlePaddle backends
- Implemented non-linear activations and statistical functions enabling cross-framework code conversion

Open Source Contributor Jun 2024 – May 2025
CrossGL / CrossTL *Remote*

- Implemented universal shader IR for CrossGL enabling bidirectional translation between shader languages

Projects

SLX - High-Performance Deep Learning Framework
Slang, PyTorch, Python, CUDA

- Built high-performance deep learning framework on PyTorch with custom shader-based kernels using Slang
- Designed architecture enabling seamless integration of custom CUDA kernels with PyTorch operations

Shruti-Drishti - Real-Time Indian Sign Language Recognition
Python, Mediapipe, TensorFlow, Flask, CNN, LSTM

- Developed real-time ISL recognition app achieving 90%+ accuracy using CNN, LSTM, and Mediapipe Holistic
- Won award at Hasgeek hackathon for innovative ISL detection solution with Flask-based deployment

LLM Playground - Chatbot Arena for Model Benchmarking
Docker, GCP, Streamlit, LLM APIs

- Built chatbot arena interface for simultaneous comparison of multiple LLMs with side-by-side evaluation
- Deployed scalable application using Docker and GCP for efficient model inference and benchmarking

Education

Tezpur University 2020 – 2024
Bachelor of Technology in Electrical, Electronics and Communications Engineering *Tezpur, Assam*

Technical Skills

Languages: Python, C++, CUDA, SQL
ML/DL Frameworks: PyTorch, TensorFlow, JAX, Keras, OpenCV, PaddleOCR, YOLO, DETR, CLIP, Mediapipe
Backend & Tools: Django, FastAPI, Flask, MongoDB, Docker, AWS, GCP, Streamlit, Git, Tableau, Heroku
Specializations: Computer Vision, Deep Learning, NLP, MLOps, RAG, Self-Supervised Learning, CNN, LSTM, XGBoost, SVM