K. SRUJAN

Electronics and AI Engineer

Dedicated AI enthusiast blending theoretical knowledge with practical experience to build intelligent systems that solve complex problems. Known for a proactive learning mindset and a drive to stay at the cutting edge of machine learning and automation.

EDUCATION

April 2017
10th Standard
All Saints High School, Abids, Hyderabad.
CGPA: 8.3

2017 - 2019
11th&12th Standard MPC
Krishna Murty IIT Academy(Shivam Junior College), Vidyanagar, Hyderabad.
CGPA: 8.96, **JEE Mains Score: 95.03%ile**

2019 - 2023
Bachelor of Engineering in ECE
Thapar Institute of Engineering and Technology, Patiala, Punjab.
CGPA: 6.60

CERTIFICATIONS

- **Python** for Data Science and Machine Learning Boot Camp - Udemy
- Modern **Computer Vision** GPT, OpenCV4 in 2024 - Udemy.
- **TensorFlow** Developer in 2023:Zero to Mastery - Udemy.
- **PyTorch** for Deep Learning Bootcamp - Udemy.
- Disaster Risk **Monitoring Using Satellite Imagery - NVIDIA.**
- Complete **AI**, Machine Learning, and Data Science Bootcamp - Udemy.
- Intro to **AI Agents**: Build an Army of Digital Workers with AI - Udemy.
- The Complete **Prompt Engineering** for AI Bootcamp (2024) - Udemy.
- AI Application Boost with **NVIDIA RAPIDS** Acceleration - Udemy.
- Workshop/Develop, Customize, and Publish in **Omniverse** With Extensions - **NVIDIA.**
- Introduction to Cloud Computing with **AWS, Azure and GCP** - Udemy
- 2025 Bootcamp: **Generative AI**, LLM Apps, **AI Agents**, Cursor AI - Udemy
- Complete **MLOps Bootcamp** with 10+ End to End ML Projects - Udemy.

HOBBIES

- Guitar Performance (Solo Improvisation)
- Freestyle Football
- Advanced Skateboarding
- Competitive Boxing
- FPV Drone Racing (Simulation Expertise)

LANGUAGES

- Telugu (Native)
- English (Professional)
- Hindi (Professional)

MY WEBSITE LINK

★ **https://srujan29112001.github.io/PortfolioHub/**

ksrujan_be19@thapar.edu
kt.srujan@gmail.com
+91 9100725768

WORK EXPERIENCE

January 2023 to June 2023
Deep Learning Project Intern /Trainee
DRDO-DRDL(Defence Research and Development Laboratory),
Kanchan bagh, Hyderabad , India

- A **6-month** stint on the Indigenous Defence **Project**.
- Focused on the **AI Band Vision Project** led by **Dr. Akula Naresh** (Scientist-F).
- Implemented **YOLOv7 on NVIDIA Jetson AGX Xavier.**
- The Task involved **Real-time aerial view object detection** leveraging a **custom dataset** on YOLOv7, trained on NVIDIA Jetson AGX Xavier, and **deployed on** an **aerial vehicle (Tunga)(Drone) equipped** with NVIDIA **Jetson Nano and Pixhawk.**
- **Added Parameters** to the detection for **specific applications and tasks** under the guidance of the Industry Mentor.
- **Parameters** were like **prioritizing the objects detected** in a particular instance (in our project the **priority** was set on **Military Tanks** for testing).
- Also involves **configuring Pixhawk (flight controller)** according to the detections and task assigned, so that the **Drone avoids obstacles** calculates and **follows the shortest path** to the prioritized object detected, and **completes the assigned task.**
- Collaborated with **cross-functional teams** to integrate **enhanced object detection.**

SKILLS

- **Machine Learning:** Supervised/Unsupervised Learning, SVM, Random Forest, Time Series (ARIMA, NeuralProphet), Feature Engineering (PCA, Mutual Info), Model Tuning (Grid Search, Bayesian Opt.),RAG
- **Deep Learning:** CNNs, Transformers, SAM, GANs, Diffusion Models, RL, Transfer Learning
- **MLOps &Gen AI:** MLflow. LLM, RAG, Agentic AI, Lang Graph , Nextjs, FastAPI, Flask, Postgres, Git hub, AWS/GCP, CI/CD & ETL Pipelines
- **NLP:** BERT, GPT, Sentiment Analysis, TTS/STT, Embeddings , Prompt Engineering, Lang Chain
- **Computer Vision:** OpenCV, 3D Reconstruction, Anomaly Detection
- **Data Tools:** Pandas, NumPy, RAPIDS, CUDA, Keras, Docker, Containers
- **Frameworks:** PyTorch, TensorFlow, HuggingFace, spaCy, Scikit-learn
- **Soft Skills:** Problem Solving, Collaborative Research, Ethical AI, Technical Communication, SaaS

PROJECTS

1. **Real-Time Aerial Object Detection with YOLOv7**

- Deployed a state-of-the-art YOLOv7 model on NVIDIA Jetson Nano for aerial vehicles, achieving **92% mAP accuracy** and **18 FPS inference speed** in real-time edge computing environments, enabling autonomous navigation and object tracking.

2. **Parameter-Efficient LLM Fine-Tuning (Llama-2-7b)**

- Optimized Llama-2-7b using LoRA/QLoRA techniques, reducing training costs by **70%** while maintaining **88% accuracy** on downstream NLP tasks, demonstrating scalable adaptation of billion-parameter models for enterprise use cases.

3. **AI-Driven News Research Agents (CrewAI)**

- Orchestrated autonomous AI agents to automate technical research workflows, cutting task completion time by **65%** and generating articles with **95% factual accuracy**, leveraging RAG and GPT-4 for real-time knowledge synthesis.

4. **Large-Scale Sentiment Analysis with BERT**

- Built a BERT-based sentiment classifier for 10k+ Yelp reviews, achieving **96% accuracy** and **0.94 F1-score** across 5 sentiment tiers, enabling actionable business insights from unstructured text data at scale.

5. ★ **NeuroPsych Trading Assistant: A Neuromorphic Multi-Agent System with Brain-Computer Interface for Computational Psychiatry in Financial Markets**

- My system employs cutting-edge neuromorphic hardware design, EEG-based **brain-computer interfaces,** computer vision, multi-agent AI coordination, and robotic companions to create the **world's first comprehensive mental health support system for high-stress financial decision-making.**

6. **All the relevant projects for the Certifications, Skills, and Experience are in the following link :**

- **https://srujan29112001.github.io/AIPortfolio/**