VIRAT SRIVASTAVA

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EDUCATION

- **Integrated Masters of Technology in Computer Science and Engineering** (2021 - 2026)
  Specialization in Artificial Intelligence and Machine Learning
  Cumulative GPA - **7.0**, VIT Bhopal University, Bhopal, 466114, M.P.
- **XIIth**, Percentage - **74.4**, Campion School, Arera Colony, Bhopal, 462016, M.P. (2019 - 2021)
- **Xth**, Percentage - **64.4**, Campion School, Arera Colony, Bhopal, 462016, M.P. (2018 - 2019)

SKILLS

- **Tech Stack:** Machine Learning, Deep Learning, LLM, Generative AI, **Git**, GitHub, Deep RL Algorithms, **PyTorch**, **TensorFlow**, **Keras**, **System Design**, Microservices, **Software Development**, Linux, **Data Structures**.
- **Languages:** **Python**, C++, C, **MySQL**, **PostgreSQL**, **CUDA**, JavaScript, Node, Docker, Kubernetes.

WORK EXPERIENCE

National Remote Sensing Center, ISRO (September, 2024 - October, 2024)
Machine Learning Project Intern *On-Site - Hyderabad, India*
Roles: • ML Ops • Deep Learning Engineer • Data Scientist
Projects: • Renewable Solar Energy Estimation in Urban Area using Satellite Images

- Developed **3 Deep Object Detection and Classification Models** for Urban Development for spatial image - 0.30m to 20m.
- Programmed in **3 pre-processing and post-processing data pipelines** for **3.5 million square kilometers**.
- Demonstrated project with ground truth accuracy of **97% to 99%** for all pipelines, highlighting exceptional model performance, efficiency and reliability in predictive analytics.

Omdena Mexico (July, 2023 - June, 2023)
ML Developer *Remote - Mexico City, Mexico - Bhopal, India*
Roles: • **Machine Learning Engineer** • **Data Scientist**
Projects: • **AI Based Road Inspection System**

- Delivered **model training** and **pre-processing** on **3,000 images**, resulting in a parameter reduction of **30%**.
- Collaborated with **3 teams** to improve model accuracy to **85%**, successfully delivering projects on time.
- Contributed over **30%** of geo-spatial data collection and model optimization, enhancing overall accuracy and efficiency.

PROJECTS

Trade Agents
Roles: • Quantitative Analyst • Machine Learning Engineer • GitHub

- Designed and deployed over **10,000** unique agents across listed stocks, each with distinct configurations to optimize predictive accuracy and risk management.
- Reduced processing time by **50%** using containerization on AWS, enabling real-time trade decisions with a latency of 500ms through an integrated Alpha Vantage API.

Screen time Reduction Application
Roles: • Software Architecture Design • Machine Learning Developer • GitHub

- Built **Machine Learning Pipeline** for **camera frames as input data** with **90% accuracy** to turn off the screen when toddler faces are detected in the frames reducing phone addiction.

Self Landing Rocket System
Roles: • ML Engineer • ML Engineer • C/C++ Developer • GitHub

- Built Deep Reinforcement Learning Pipeline capturing multi-sensor input data streams with accuracy of 85% CNN model for point of reference object detection and corrective steering.
- Validated and tested on MATLAB, integrating with Sensor and Drone Toolbox for Data Capturing and Analysis with 20+ open-ended nodes for higher complexity development.

EXTRA-CURRICULAR ACTIVITIES

- AI Club **Secretary**, VIT Bhopal: Organized the execution of 12 diverse events, including workshops and Hackathons, engaging over 2000 students; facilitated an increase in club attendance by **40%** through targeted marketing strategies and event promotion.
- Developed a Crop Fertilizer Recommendation Model within the AI Club VIT Bhopal technical team, enhancing farm production by **24%** and achieving a remarkable **37%** optimization in fertilizer and resource utilization.