Lakith Pusarla

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SKILLS

- Artificial Intelligence: Machine Learning (Regression, Classification, Clustering), Deep learning (PyTorch, TensorFlow), GPU/ CUDA, SciPy, Scikit-learn, Programming (Python, C, C++, Java, Swift)
- Data Science: SQL, PySpark, Hadoop, PostgreSQL
- Embedded systems: Google coral, Raspberry Pi, Raspberry PICO, Arduino Uno, Arduino ESP 32 Feather
- Technologies: Jira, Git, Slack, Visual Studio Code, XCode, Arduino IDE, OpenMV IDE, IOT, Tensorflow.

EDUCATION

GEORGE MASON UNIVERSITY **Fairfax, VA**
Master of Science in Computer Science (Machine Learning Specialization). **2022-2024**

GITAM UNIVERSITY **Visakhapatnam, India**
Bachelor of Technology, Computer Science and Engineering. **2015-2019**

EXPERIENCE

CIAO LABS, GEORGE MASON UNIVERSITY **Fairfax, VA**
Research Assistant **05/2023-Present**

- Developed research-winning multi-agent system (95% target capture) for Office of Naval Research project.
- Processed 10k+ game images with 87% CNN-based classification precision (using on-board camera at various resolutions).
- Integrated blimp-mounted FPV camera with real-time network classification via efficient data transfer.

TATA CONSULTANCY SERVICES **Bangalore, India**
Full Stack Developer **2019-2022**

- Built efficient Server-side APIs for "MyACUVUE" app (2 new countries launched).
- Spearheaded async-await/regex implementation in Postgres, boosting data processing (50% faster) and Database efficiency (25%) using AWS (Load Balancer, EC2, S3).
- Analysed the logs and patterns and guided the Backend/Middleware Support Team, ensuring effective issue resolution, automations and client support, contributing to sustained user satisfaction with over 400,000 users.

ACADEMIC PROJECTS

Airline Delay Analysis **10/2023**

- Implemented models to analyze airlines flight data with 20 million records and identify potential causes for delays
- Leveraged machine learning prediction techniques and anticipated punctuality of flights based on airlines with 90% accuracy
- Applied Matplotlib and Seaborn for data visualization to convey complete airline delay analysis.

Rational PACMAN Agent **08/2023**

- Designed evaluation functions using Adversarial Search, Min-max, Expectimax, Alpha-beta Pruning with average accuracy improvement of 70% over baseline methods.
- Achieved 85% success rate in capturing undetectable ghosts with agents using Hidden Markov models.

Obstacle Avoidance on Autonomous Blimps **10/2022**

- Implemented machine learning models with Computer Vision to analyze game balls and goals to achieve 28% reduction in time required for goal capture and goal scoring.
- Integrated PID system to effectively control Yaw, Pitch and speed of Autonomous movement resulting in 10% reduction in battery consumption for ownship angle control.