Anudeep Adiraju

(917) 291-7024 | anudeep.adiraju@gmail.com | LinkedIn | GitHub | Austin, TX

Professional Summary

Machine Learning researcher specializing in multimodal deep learning, NLP, and high-performance computing. Published technical writer with 10,000+ developer readership. Proven track record of building scalable ML infrastructure achieving 92% accuracy, processing 200,000+ documents daily, and optimizing inference from 5s to 0.3s. Seeking to advance Google's research in AI/ML through innovative solutions to real-world, large-scale problems.

Education

The University of Texas at San Antonio **San Antonio, TX**
Master of Science in Computer Engineering | ***GPA: 3.66/4.00*** *Jan 2024 – Dec 2025*

- **Relevant Coursework:** Machine Learning, Deep Learning, Natural Language Processing, Computer Vision, Applied Algorithms, Distributed Systems, Statistical Methods

Technical Skills

Languages: Python, C++, JavaScript, Java | **ML/AI:** PyTorch, TensorFlow, Transformers, RLHF, Computer Vision
Research Tools: Jupyter, Git, LaTeX, CUDA, Pandas, NumPy, Scikit-learn | **Cloud/Infrastructure:** AWS, Docker
Frameworks: FastAPI, React, Flutter | **Data:** SQL, MongoDB, Big Data Processing, Data Science

Research Experience

Graduate Research Assistant - Multimodal Deep Learning **Jan 2025 – Present**
Data Analytics Center, UTSA (PI: Dr. Eric Bachura) *San Antonio, TX*

- Developed multimodal deep learning models achieving 92% accuracy, outperforming previous benchmarks by 40% through novel architecture design and optimization techniques
- Built scalable ML compute infrastructure using Kubernetes and Docker, processing 200,000+ documents daily with automated pipelines and distributed computing
- Optimized model inference time from 5s to 0.3s using advanced caching, quantization, and parallel processing techniques
- Collaborated with interdisciplinary research team on cutting-edge AI solutions for real-world applications
- Documented research methodologies and published findings reaching 10,000+ developers on Medium

Graduate Research Assistant - Mobile AI Systems **Sep 2024 – Present**
UTSA Computer Engineering Department (Advisor: Dr. Akopian) *San Antonio, TX*

- Researching integration of Large Language Models (LLMs) with mobile applications using Flutter and NLP
- Developed AI-driven quick reply systems utilizing advanced natural language understanding and generation
- Published research on cross-platform mobile AI applications in IEEE conference proceedings
- Contributed to open-source mobile AI frameworks with 500+ GitHub stars

Work Experience

Computer Science Lead - Robotics Research **Jan 2025 – Present**
NASA Lunabotics Challenge Team, UTSA *San Antonio, TX*

- Led team of 8 researchers developing autonomous navigation algorithms for lunar robotics competition
- Implemented computer vision and path planning algorithms achieving 35% navigation accuracy improvement
- Built custom LSTM neural network in C++ running 3x faster than PyTorch baseline implementation

Machine Learning Engineering Intern **Mar 2022 – May 2022**
Aimlytics Technologies *Hyderabad, India*

- Enhanced NLP capabilities using SpaCy models, improving keyword extraction accuracy by 15%
- Optimized ML pipelines achieving 85% model accuracy with automated testing and deployment

Research Projects

High-Performance Neural Network Framework | *C++, CUDA, Python* **Dec 2024**

- Built LSTM from scratch in C++ with custom CUDA kernels, achieving 3x speedup over PyTorch
- Implemented advanced memory optimization techniques for large-scale model training
- Open-sourced framework with comprehensive documentation, gaining 1,000+ GitHub stars

Plant Disease Detection Using Computer Vision | *Python, TensorFlow, OpenCV* **Nov 2024**

- Developed CNN-based model for plant disease classification with 94% accuracy on 50,000+ images
- Published results in research paper: "Plant Club: An all-in-one Plant based Application"
- Deployed model serving 10,000+ API requests daily with sub-second inference time

Publications & Achievements

Publications: "Plant Club: An all-in-one Plant based Application" - IEEE Conference 2024
Open Source: 10,000+ developers reached through technical articles on Medium and GitHub contributions
Awards: 1st Place - Hack Your Path 3.0 Hackathon | UTSA Competitive Research Scholarship
Certifications: TensorFlow Developer | Deep Learning with PyTorch: GANs | Google Cloud Essentials