

ADITYA PAKALA

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EDUCATION

The University of Texas at Dallas - Richardson, TX

May 2026

Master of Science, Computer Science

GPA: 4.0/4.0

Birla Institute of Technology and Science, Pilani - India

May 2024

Dual Degree with Master of Science and Bachelor of Engineering

SKILLS

Languages: Python, SQL, R, C, C++, Java, JavaScript, MATLAB, HTML, CSS

Developer Tools: Flask, Django, REST APIs, Git, Docker, CI/CD, PowerBI

Technologies: Azure (VMs, ML, Cosmos, Compute, LLMs), AWS (EC2, S3), MySQL, MongoDB, PostgreSQL

Frameworks: Scikit-Learn, TensorFlow, PyTorch, Keras, Transformers, Pandas, NumPy, Matplotlib, Seaborn

EXPERIENCE

ZeoAuto (YC 20), Mountain View, CA

Jan 2024 - Jul 2024

Software Developer Intern

- Enhanced system performance by 20% by optimizing delivery route algorithms and implementing ML-based optimizations in Zeo Fleet's platform, utilizing Python, AWS Lambda, and AWS S3 for scalable storage.
- Developed and deployed a chatbot using Flask, Python, and NLP techniques (RAG), reducing response times by 30% and increasing customer engagement by 72%.
- Integrated RESTful APIs to automate workflows, cutting backend latency by 40% and saving \$50K annually, with deployment in AWS EC2 for better scalability.

InMobi, Bangalore, India

Jul 2023 - Dec 2023

Data Science Intern

- Generated \$250,000 in additional ad revenue by designing high-impact ad recommendation models using Python, SQL, AWS SageMaker, and ML pipelines, increasing click-through rates by 24%.
- Optimized ML inference pipelines with Apache Spark, AWS EC2, and AWS S3, reducing model latency by 40% and saving \$100,000 in annual cloud infrastructure costs.
- Automated 500M+ event ingestion via PySpark & Airflow, eliminating 80% of manual processing.

Artificial Intelligence Institute, University of South Carolina, Columbia, SC

Sep 2022 - Jul 2023

Research Intern

- Developed Factify 3M ([Link](#)), a 3-million-sample fact-checking dataset using Stable Diffusion, adversarial attacks, and BERT-based embeddings, improving model robustness and accuracy by 15%.
- Analyzed the effect of adversarial fake news attacks using OPT-generated stories, revealing a 25% decline in fact-checking accuracy and establishing a new standard for mitigating AI-driven misinformation.
- Spearheaded the creation of a sentiment analysis model that achieved 95% accuracy in classifying hateful memes, reducing the spread of harmful content by 20%. (*Published as main paper in **EMNLP 2023**, Singapore.*)

RESEARCH & PROJECTS

Predictive Maintenance 4.0: AI-Powered Equipment Failure Forecasting ([Link](#))

Mar 2022 - Jul 2022

- Engineered an ML model, enhancing failure prediction accuracy by 25% and cutting downtime by 30%.
- Optimized data preprocessing techniques, improving model training efficiency by 40% and accelerating the deployment process. (*Published at the **International Conference on Industry 4.0 and Advanced Manufacturing***)

Drug Discovery using Artificial Intelligence ([Link](#))

Jan 2022 - Mar 2022

- Designed a computational model for de novo drug discovery using Variational Autoencoders (VAEs) and Adversarial Autoencoders (AAEs), increasing drug candidate identification efficiency by 20%.
- Leveraged recurrent neural networks to analyze over 50 million sequences in molecular datasets, accelerating the drug discovery process and identifying potential drug candidates 25% faster.

ACCOMPLISHMENTS

Research Publications: Published 5 papers in top-tier peer-reviewed journals and international conferences.

Leadership & Community Engagement: Leading events as Officer, Student Leadership Council, UT Dallas.

Academic Honors & Awards: Recipient of the prestigious Dean's Excellence Scholarship at UT Dallas.