Himansh Mudigonda

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EDUCATION

Arizona State University

Masters in Computer Science

- 2024-2025 Herbold ASU Graduate Engineering Scholarship
- 2023-2024 ASU Engineering Graduate Fellowship

Sri Ramaswamy Memorial Institute of Science and Technology

Bachelor of Technology in Computer Science Engineering

2019-2023 SRM Merit Scholarship

EXPERIENCE

Endimension LLC

Staff Machine Learning Intern, Health

• Pre-trained and fine-tuned state-of-the-art models on large-scale datasets using self-supervision techniques, improving model accuracy by 3.6% and reducing computational costs by 45% and 62% during training and inference.

- Deployed computer vision models across 300 clinics via Amazon Web Services (AWS) for scalable storage and computing, ensuring 99.999999999999 uptime, increasing revenue by 60%.
- Extracted insights from 500,000+ clinical notes using BERT, GPT-3, and T5 models and leveraged AWS for scalable training and deployment, optimizing cloud storage and computing, demonstrating expertise in NLP models and LLMs.

SRM Advanced Electronics Laboratory

Machine Learning, Software Development

- Developed a kernel-based ridge regression model using photoacoustic spectroscopy for non-invasive blood glucose detection, achieving an RMSE of 10.94 mg/dl, MAD of 10.13 mg/dl, and MARD of 8.86%. Scientific Report, Nature Journal(Q1).
- Engineered and curated a high-quality dataset with 205 samples by implementing robust feature extraction methods using Mutual Information Gain and other optimization algorithms, showcasing preprocessing and data curation abilities.
- Designed an end-to-end setup using pulsed laser sources and transducers to securely transmit data to the Google Cloud Platform (GCP) with less than 10 milliseconds latency to ensure real-time data sensing, telemetry, and logging service.

NeXtTech LLC

Cognitive AI Researcher, Machine Learning

- Spearheaded the design and implementation of SoTA deep learning models processing EEG, 9-axis motion data from a 14-channel Emotiv EPOC X, questionnaires, and essays, achieving a 92.7% accuracy in cognitive learning style classification.
- Developed a transformer-based architecture that improved peer performance in exams, quizzes, and assignments by 17%.
- Collaborated with cross-functional teams of neuroscientists, psychologists, and English experts, driving project success and demonstrating problem-solving skills, attention to detail, and a strong capacity for logical thinking.

PROJECTS

OpenForencics Deep Fake Detection Challenge Using Microsoft's Swin Transformer	August 2024 - September 2024
• Trained models to detect synthetically generated images with an accuracy of 98.95% using torch	, lightning, and timm.
Self-Supervised (800GB+) Large Scale CXR Disease Prediction Using Meta's DINOv2	March 2024 - July 2024

• Achieved a groundbreaking 92.06%, 93.11%, and 95.71% accuracy, surpassing numerous SOTA self-supervised baselines.

SKILLS

Python, Java, R, MATLAB, C++, Shell, PyTorch, Keras, TensorFlow, TensorRT, CUDA, OpenCV, CUDA, LangChain, LLMs, Computer Vision, MLOps, DevOps, Optimization, ETL Pipelines, Data Visualization, GCP, VertexAI, AWS, Azure, Apache Spark,, MySQL, PostgreSQL, MongoDB, BigQuery, Django, PowerBI, Looker, Tableau, StreamLit, Pandas, Numpy, CI/CD.

CERTIFICATIONS AND ACHIEVEMENTS

- **Google:** Google AI Essentials.
- Stanford: Supervised ML: Regression and Classification
- **IBM:** Getting Started with Cloud for Enterprise.
- **IBM:** Getting Started with Enterprise Data Science.
- **IBM:** Getting Started with Enterprise-grade AI
- **DeepLearning.AI:** Neural Networks and Deep Learning.
- **DeepLearning.AI:** Improving Deep Neural Networks
- **DeepLearning.AI:** Structuring Machine Learning Projects
- **Open-Source:** Pop!_OS!, Archcraft Linux, AOSP Android.
- **CITI Program:** Data or Specimens Only Research

Tempe, Arizona Graduation Date: May 2025 CGPA: 4.00

Amaravathi, India Graduation Date: June 2023 CGPA: 9.01

Remote- Mumbai, India

April 2024 - August 2024

Amaravathi, India

Chennai, India

July 2022 - October 2022

October 2022 - July 2023