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EDUCATION

University of Southern California, Viterbi School of Engineering **Los Angeles, CA, USA**
Master of Science in Computer Science Jan 2023 - Dec 2024
Coursework: Algorithms, Machine Learning for Data Science, Database Systems, Deep Learning, Applied NLP GPA: 3.96/4.0

Anna University, Madras Institute of Technology **Chennai, TN, India**
Bachelor of Engineering in Electronics and Communication Engineering Aug 2018 - Jul 2022
Awards: Best Outgoing Student 2022 – Anna University GPA: 9.52/10

SKILLS

Programming and Technologies: Python, C++, Java, Machine Learning, Image / Signal Processing, Cloud, Databases, Linux, SQL
Tools: TensorFlow, PyTorch, OpenCV, AWS EC2, Microservices, Docker, MongoDB, Grafana, Prometheus, Flask, Streamlit
Certifications: Deep Learning Specialization, TensorFlow Developer Professional Certificate, Google IT Automation Prof. Cert.

EXPERIENCE

TadHealth **Los Angeles, CA, USA**
AI Intern May 2024 - Jul 2024
- Integrated AI models on a mental health platform to enhance resource recommendation quality.
- Developed a writing aid for therapist progress notes using sequence prediction and validation of guidelines and format.

Viterbi School of Engineering, USC **Los Angeles, CA, USA**
Course Producer - CSCI 445x (Introduction to Programming Systems and Design) Aug 2023 - Dec 2023
- Mentored and guided over 60 students during lab sessions and office hours. Graded Programming assignments and exams.

IIT Madras **Chennai, TN, India**
Project Engineer (AI in Ultrasound) Aug 2022 - Dec 2022
- Estimated head circumference and femur length from US images with <1.7 MSE to perform Fetal Biometry built around U-Net.
- Achieved 98% accuracy in Plane Classification by training Xception-based models through rigorous model selection.
- Formulated initial algorithm and combined modules to provide a complete framework from volume scan to insights.

Zummit Infolabs **Remote**
Technical Lead - Third Eye (AI-enabled wearable for visually impaired) Mar 2022 - May 2022
Junior Data Scientist (Intern) Oct 2021 - Mar 2022
- Conceptualized Navigation module by tracking objects with YOLOv5 and classifying as obstacles with 94% accuracy.
- Streamlined other modules – Everyday object detection, Reading, Currency detection and tested deployment on Raspberry Pi.
- Led a team of six Data Science interns as a Technical Lead, overseeing task and timeline identification and allocation.

Wipro Limited **Remote**
Intern - Site Reliability Engineering Jun 2021 - Jul 2021
- Implemented SRE concepts (SLIs and Error Budget) to provide metric monitoring and alerts as a modular add-on.
- Monitored a sample app deployed on AWS EC2, exporting metrics with Prometheus and visualizing on a Grafana dashboard.

ACADEMIC PROJECTS

EEG Motor Movement/Imagery Classification: Benchmark Jan 2024 - May 2024
- Benchmarked Deep Learning methods to classify EEG Motor Movement signals and tested impact of noise and augmentation.

Deceiving Machine-Text Detectors through Realistic Red Teaming Attacks Jan 2024 - May 2024
- Explored and tested zero-shot techniques to detect AI generated text such as Fast DetectGPT, DetetctLLM, DNA-GPT.
- Red-teamed detectors with realistic attacks, maintaining quality and context to test detection performance and robustness

Reinforcement Learning based Automated Path Planning Jan 2022 - Jun 2022
- Implemented hardware-based (Jetson Nano) Reinforcement Learning path planning to explore and map a new environment.

PUBLICATIONS

- Fetal Ultrasound Brain Biometry: An Integrated Deep Learning Framework, **IEEE SAUS** (Mar 2024)
- Reinforcement Learning based Automated Path Planning in Garden Environment using Depth, Woxsen University, **AIKP'22**
- Defect Prediction in Additively Manufactured Components by Image Processing and Machine Learning, **NWS 2022**