Subashree Dinesh

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EDUCATION

University of Colorado, Boulder Aug 2023 – May 2025
Master of Science in Data Science GPA: 3.8/4
Anna University, Chennai Aug 2017 – May 2021
Bachelor of Science in Electronics and Instrumentation Engineering GPA: 8.6/10

EXPERIENCE

Research Assistant May 2024 – Present
CIBER Lab, University of Colorado Boulder
- Analysing human behavior to understand perceptions of flood risks in the United States and employing statistical and machine learning techniques to identify patterns in the data.

Machine Learning Engineer Jul 2022 – Jun 2023
Multicoreware Inc
- Developed a multi-object tracking algorithm using YOLOv6 and TensorFlow for CCTV cameras achieving a 78% MOTA score in tracking moving pedestrians.
- Conducted quantization and pruning experiments on heavy object tracking models to fit into the GrAI chip, resulting in a 20% reduction in training time.
- Led the seamless migration of object detection and tracking models from PyTorch to TensorFlow, including YOLO-v6, MobileNet-v2 and FairMOT.

Machine Learning Intern Feb 2022 – Jul 2022
Multicoreware Inc
- Engineered a minimum viable product for detecting vehicles and pedestrians using radar point cloud data.
- Built a visualization tool incorporating DBSCAN to present the point cloud results to stakeholders.

Research Intern (Machine Learning) Aug 2021 – Feb 2022
Madras Scientific Research Foundation
- Awarded one of only 5 coveted Research Internship positions nationally from a pool of 800 applicants. Performed research focused on detecting defects in additive manufacturing.
- Developed an object classification model using transfer learning to detect defects in 3D printed products, achieving 89% accuracy.

PROJECTS

Question Answering Framework for Scientific Inquiry Dec 2023
- Developed a question answering model specific to NLP scientific literature using the QASPER dataset.
- Sectioned scientific papers into separate paragraphs for granular analysis and leveraged BERT to process and understand the content of each paragraph.

Visual Image Search Engine Dec 2023
- Devised and implemented an image search engine to enhance women's fashion discovery employing VGG16 for feature extraction and estimating similarity with distance metrics.

Black Friday Sales Analysis Sep 2023
- Conducted a comprehensive analysis, using advanced hypothesis testing techniques to identify significant trends and patterns to predict purchase patterns for the year 2023.

TECHNICAL SKILLS

Programming: Python, SQL, R, C++
Developer Tools: GitLab, API, Docker, Google Cloud Platform, VMs, Linux
Data Visualization: Tableau, PowerBI, Excel, Matplotlib
Data Science: TensorFlow, PyTorch, NumPy, Pandas, Scikit-learn, Tidyverse