Andrew Michael Silveira DiBiasio

andrew.dibiasio@gmail.com linkedin | github

Education

Georgia Institute of Technology, B.S. in Computer Science, 4.0

August 2022 to May 2025

Concentration in Intelligence and Information Networks. Courses in Artificial Intelligence, Intro to Probability & Statistics, Programming & Optimization, Linear Algebra, DSA (Teaching Asst).

Technical Skills

Programming Languages: Java, Python, C, C#, JavaScript, Dart Data Manipulation: Pandas, NumPy, SQL, Matplotlib, Seaborn, PIL

ML/AI: Scikit Learn, PyTorch, FAISS, LangChain LLMs

DevOps: Docker, AWS (CLF-C01 Certified), Git

Web/App Dev: Flask, REST APIs, HTML/CSS, React, JavaScript, Flutter, Unity, Android Studio

Experience

Software Engineer Intern – MITRE

May 2023 to August 2023

- Tested and evaluated a YOLOv4 Computer Vision model from DoD CDAO's Smart Sensor. Generated KPI metrics on the detection, classification, and geolocation of military threats. Addressed incompatible hierarchical test image labels using vector similarity search (FAISS).
- Debugged network and configuration issues within a containerized testing harness. Built and pushed docker images of the model onto Linux VMs for use with the harness and analytic scripts.
- Created an extractive AI Outlook bot using LangChain during an LLM focused GPT Hackathon.
- Initialized and configured various AWS Services (EC2, S3, VPCs, IAM, NACL) to deploy highly available and secure websites in a sandbox environment. Earned an AWS CLF-C01 Certificate.

Technical Aide Intern – MITRE

June 2022 to August 2022

- Developed Augmented Reality features facilitating indoor navigation and integrated them into the MITRE@Work mobile app used by over 1,000 employees. Utilized Unity and Android Studio.
- Researched solutions to address development platform incompatibilities with the MapsIndoors API Client. Presented viable options geared towards interoperability to the development team.

Projects

NLP for Financial Markets, Junior Capstone Project (Three Semesters)

August 2023 to Present

- Working under Professor TBD to develop TBD.
- Coming Soon...

AirWaves, a website monitoring TV reception in the Greater Boston Area

April 2020 to July 2020

- Generates real-time graphs depicting relationships between various reception metrics and weather conditions. Created an API Framework that submits sanitized queries to the database.
- Established a data pipeline processing incoming signals: feeds signals from an antenna into a tuner, fetches signals from the tuner's API, and stores them in an SQL database.

CHIME, a COVID-19 patient projection model designed by Penn Medicine April 2020 to April 2020

Open-Source Contributor making various pull requests resolving open issues. Contributions included the correction of various errors in the model and the implementation of new features.

Extracurriculars

Big Data Big Impact, Project Developer

January 2023 to Present

- Researched and implemented various machine learning algorithms to achieve the best accuracy predicting flight statuses. Models included Random Forest, Decision Trees, and Neural Networks.
- Hosted the best model with a Flask API and deployed the predictor tool using React.

Data Science @ Georgia Tech, Member

August 2022 to Present

- Used TensorFlow to train facial image classification models predicting age, gender, and ethnicity.
- Engaged in lectures on various machine learning algorithms and data analysis best practices.