

ANDREW MICHAEL SILVEIRA DiBIASIO

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Education

Georgia Institute of Technology, *BS in Computer Science, 4.00/4.00 GPA*

Atlanta, GA

Concentration in Intelligence and Information Networks

August 2022 to December 2025

- **Selected Coursework:** Machine Learning, Computer Vision, Artificial Intelligence, Computer Systems, Networking, Databases, Principles of Software Engineering, Analysis of Algorithms, DSA, OOP, and Mathematics (var)
- **Organizations:** Society of Hispanic Professional Engineers (SHPE), Data Structures & Algorithms Teaching Assistant, Data Science @ GT, Big Data Big Impact, Competitive Programming, Investments Committee, Survivor @ GT

Skills

Languages Python, Java, C/C++, JavaScript, HTML, CSS

Technologies TensorFlow, PyTorch, OpenCV, LangChain LLMs, Docker, AWS, Git, SQL

Skills Machine Learning, Data Analysis, Data Engineering, Full-Stack Development, DevOps, Data Structures, Algorithms, Mobile Application Development, Augmented Reality

Experience

Amazon

Bellevue, WA

Machine Learning Engineer Intern

June 2024 to August 2024

- Implemented early stopping optimizations across ensembled iterative learners in **AutoGluon**, an AutoML framework.
- Generated learning curves from >200 datasets & conducted parameter search; benchmarked various stopping strategies.
- Created unit tests to ensure functionality of fixed/adaptive patience and minimum delta stopping strategies.

MITRE

Bedford, MA

Software Engineer Intern (Part-Time)

January 2024 to May 2024

- Evaluated computer vision models used by Google's Augmented Reality Microscopes to identify cancers in real-time.
- Designed cellular slide image transforms that simulate microscope configuration errors & visualize model performance.
- Created a web interface for pathologists to share and view test results. Utilized AWS EC2, S3, VPCs, IAM, & NACLs

Software Engineer Intern

May 2023 to August 2023

- Assessed the ability of a PyTorch YOLO Computer Vision model to detect and classify military threats.
- Researched and established a workflow for computing metrics that more comprehensively evaluated the model than previous methods, ultimately leading to further hyper-parameter tuning. Presented findings to the US Dept of Defense.
- Expanded an existing AWS data pipeline, streamlining the T&E process and replacing manual data transfers.
- Debugged network and configuration issues with a containerized testing harness. Built and pushed docker images of the underlying model onto Linux VMs for use with the harness and analytic scripts.

Software Engineer Intern

June 2022 to August 2022

- Developed Augmented Reality features facilitating indoor navigation and integrated them into a mobile app used by 1K+ employees. Implemented solutions to platform incompatibilities with the API Client. Utilized Unity and Android Studio.

Projects

AirWaves | *Flask, REST APIs, SQL, HTML/CSS/JS, Plotly*

- Created a website generating real-time graphs of local TV reception metrics & weather conditions, proving that my home solar panels disrupted my local TV reception. Designed an API framework submitting sanitized queries to the database.
- Established a pipeline processing incoming signals: feeds signals from an antenna into a tuner, fetches them from an API, & stores them in an SQL database. Operated 24/7 on home router and sent data to a remote web server via CRON job.

NLP for Financial Markets, Capstone Project

- Working under Prof. Shah to explore the use of sentiment analysis and numerical claim detection on earning call transcripts to predict financial markets, namely stock price changes by identifying business headwinds and tailwinds.

Flight Delay Prediction | *Scikit-Learn, TensorFlow, Matplotlib, Pandas, NumPy, Flask, ReactJS*

- Trained various ML algorithms to achieve the best accuracy predicting flight statuses, including Random Forests, Decision Trees, and Neural Networks. Hosted the best model with a Flask API and deployed the predictor via React.

Interlude Connect | *Flutter, Firebase, JavaScript*

- Led a team of developers to create an iOS/Android app centered on music lesson scheduling, student-instructor matching and chatting, and volunteer hour tracking. Delivered the app to a nonprofit, which used it in 2 school districts.