

ANDREW MICHAEL SILVEIRA DiBIASIO

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Education

Georgia Institute of Technology, 4.00/4.00 GPA

Atlanta, GA

MS in Computer Science, Concentration in Machine Learning

August 2025 to May 2026

- **Coursework:** Database System Implementation, Data Visualization and Analysis, Natural Language and Computers

BS in Computer Science, Dual Concentration in Intelligence and Networks

August 2022 to May 2025

- **Coursework:** Machine Learning (TA), Computer Vision, Computing Systems, Networks, Databases, Algorithms (TA)
- **Distinctions:** Top Graduate of the College of Computing (Provost's Academic Excellence Award)

Experience

Meta

Seattle, WA

Software Engineer Intern

May 2025 to August 2025

- Designed and integrated a fine-grained hierarchical permissions framework within an annotation platform, enabling scalable and dynamic permission control product-wide.
- Developed a permission management console enabling users to view and maintain access across all projects, with integrated caching to ensure fast, scalable retrieval of permission data.

Amazon Web Services

Seattle, WA

Software Development Engineer Intern (ML)

June 2024 to August 2024

- Optimized iterative learners in an AutoML framework, **AutoGluon**, yielding framework-wide training time speedups.
- Reduced testing overhead by $>1,000,000\times$ using distributed compute to parallelize training backed by random search.
- Benchmarked rankings for adaptive early stopping strategies via parameter search on >100 large tabular datasets.
- Created unit and integration tests to preserve stopping functionality in a CI/CD pipeline for continuous validation.

MITRE

Boston, MA

Software Engineer Intern

January 2025 to May 2025

- Designed a multi-threaded inference pipeline for an Augmented Reality Microscope to identify cancers in real-time.
- Achieved low-latency predictions by using parallel inference on input images, enabling real-time system response speed.
- Benchmarked inference speeds of multi-threaded (1.21x faster) vs multi-processed implementations at production scale.

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.
- Proposed and implemented an AWS pipeline that streamlined a data labeling process and replaced manual 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.

Projects

GT Enrollment | Aiohttp, Asyncio, Scikit-Learn, Pandas, Regex

- Working under the School Chairs of Georgia Tech's College of Computing to compute optimal classroom assignments during registration periods, maximizing seat utilization and addressing over-enrollment issues.
- Leveraged asynchronous programming to ensure low-latency network response times when fetching enrollment data.

AirWaves | Flask, REST APIs, SQL, HTML/CSS/JS, Matplotlib, Pandas, NumPy, Plotly

- Created and deployed a website generating real-time graphs of local TV reception & weather conditions, proving that my home solar panels disrupt my local reception; designed an API framework submitting sanitized queries to a database.
- Launched 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.

Skills

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

Technologies Scikit-Learn, TensorFlow, PyTorch, OpenCV, LangChain LLMs, Docker, AWS, Git, SQL

Skills Machine Learning, Data Analysis, Distributed Computing, Data Structures and Algorithms, DevOps, Data Engineering, Full-Stack Development, Mobile Application Development