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:** Systems for Machine Learning, Vision-Language Foundation Models, Database System Implementation

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.
- Improved query throughput within a large-scale vision-language model serving infrastructure by introducing state-of-the-art multi-modal architectures into production systems.

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× 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