

Giselle McPhilliamy

Chicago, IL | (773)-999-2087 | gmcphilliamy3@gatech.edu | U.S. Citizen | [linkedIn](#) | <https://www.gisellemcphilliamy.com>

Education

Georgia Institute of Technology – College of Computing | Atlanta, GA

M.S. in Computer Science: Machine Learning 4.00 GPA | Expected Graduation: May 2026

- **Machine Learning Graduate Teaching Assistant** - Quiz Development & Ed Discussion Team
- Key Courses: Deep Learning, Large Language Models, Deep Reinforcement Learning, Big Data Systems, Data & Visual Analytics

B.S. in Computer Science | Minor in Biology | Honors Program

3.94 GPA | August 2021 - May 2025

- Concentration: Artificial Intelligence & Information Internetworks
- Key Courses: Machine Learning, Computer Vision, Analysis of Algorithms, Distributed Systems & Networks, Database Systems

Georgia Tech Summer Study Abroad - Universitat Politècnica De Catalunya | Barcelona, Spain

May - August 2023

Skills

Programming Languages: Python, Java, C, Javascript, CSS, HTML, C++, MATLAB

Frameworks & Tools: PyTorch, TensorFlow, ONNX, TensorRT, NumPy, Pandas, Sklearn, Spark, CUDA, OpenMP, Nsight, WandB, Oracle Cloud, Flask, Django, Git, Docker, React, SQL, NVIDIA Jetson (Orin Nano), Raspberry Pi, Linux, Arduino, GRBL, UGS, Agile

Professional Organizations: AI Safety Initiative @ GT, Common Good Georgia Tech, Run Club GT, Alpha Gamma Delta

Work Experience

Briteseed, LLC. | Machine Learning Engineering Intern | Chicago, IL

May – Aug 2025

- Developed original CNN-based model for hyperspectral imaging tissue classification, integrated spatial-spectral feature fusion, and multi-task learning to achieve >90% accuracy on classification; **patent process initiated**
- Engineered features from high-dimensional, noisy sensor data using tissue optical properties; applied de-noising filters, normalization, and jitter-based augmentation; performed extensive data cleaning to improve signal quality for generalizability
- Deployed quantized ONNX/TensorRT model to Jetson Orin Nano & interfaced with RasPi DAQ system for real-time inference
- Presented final framework to Senior Leadership Team, including CEO and outside patent counsel

Skolnick Research Group | Undergraduate Research Assistant | Atlanta, GA

Nov 2024 – May 2025

- Extracted genomic embeddings from DNABERT & Nucleotide Transformer to represent sequences from oral cancer biopsies
- Integrated latent features into TransVCOX framework; optimized classification heads for immune resistance & outcomes

F5 Networks | Software Engineering Intern, Rapid Development Team | Seattle, WA

May – Aug 2024

- Designed a pluggable framework and corresponding UI to automate the bug triage, assignment, and fixing process
- Developed heuristic-based plugins to recommend most effective bug ticket fixes + most qualified team member to implement
- Constructed comprehensive tests leading to deployment of the framework in a successful and seamless launch
- Presented end-of-project deep dive to ~25 person Rapid Development Engineering team

Briteseed, LLC. | Software and Hardware Engineering Intern | Chicago, IL

May – Aug 2022

- Developed & deployed device for robotic assisted ex-vivo prototype testing, reduced test cycle time by over 30%
- Automated the trend analysis of medical device data via a MATLAB script, reducing data analysis time >90%
- Developed a baseline logistic regression model to verify data learnability; analyzed feature weights to inform model design

Projects

RL Post-Training for Cross-Lingual Transfer in LLMs (In Progress)

- Developing a RL post-training framework (MAPO/DAPO) for cross-lingual LLM reasoning; designing reward functions for language consistency and alignment + a novel reward to reduce stance reasoning drift

High-Performance Computing Optimization

- Parallelized CPU workloads using OpenMP with efficient reductions and cache-aware scheduling
- Optimized CUDA kernel by improving memory coalescing, removing warp divergence, and tuning grid/block configurations

Textile Vision: CLIP-Conditioned Diffusion Model for Fashion Image Generation

- Built text to image CLIP-guided Stable Diffusion model with cross-attention; conducted embedding ablations to achieve 8.1 IS

Software Application for Medical Emergencies (S.A.M.E)

- Managed 6 people as team lead in the full-stack development of an app for Emory's internal medicine program
- Constructed Firebase backend database configured with REST API for CRUD operations, following Agile methodology
- Implemented K-nearest neighbors algorithm to predict likelihood of potential diagnoses and tailor treatment plan

Built and programmed CNC machine

- Designed CNC machine and assembled hardware to achieve sub-mm precision in navigating 3-D space
- Built MATLAB GUI to control Python backend hosted on Raspberry Pi with Arduino board, CNC shields, and servo motors

Leadership and Teaching Experience

President, former VP Finance | Cleanup Crew Georgia Tech – Atlanta, GA

Aug 2023 – May 2025

Academic Mathematics Coach | Peak Academic Coaching – Atlanta, GA

Sept 2023 – May 2025