Cian Thomas

678-491-1008 | ciangijothomas@gmail.com | linkedin.com/in/cianthomas/ | github.com/c178t

Education

Georgia Institute of Technology May 2026
Bachelor of Science in Computer Science *Atlanta, GA*
GPA: 4.0 — 3x Faculty Honors Award Recipient (2024-2025)

Experience

Software Development Engineering Internship May 2025 – July 2025
Amazon Web Services *Dallas, TX*

- Built and deployed a customer-facing widget in **AWS Support Console** using **TypeScript**, **React.js**, and **AWS SDK**, enabling self-service issue remediation and reducing customer resolution time.
- Created a reusable troubleshooting workflow with **AWS Step Functions**, reducing development time for future workflows by 35% and improving support efficiency.
- Designed and deployed APIs using **AWS Lambda** for execution/handling and **API Gateway** for deployment, ensuring scalable and reliable integration with the widget.
- Automated infrastructure provisioning with **AWS CloudFormation** and **CDK**, integrating CI/CD pipelines to securely deliver widget, APIs, and workflows.
- Enhanced reliability and maintainability by writing unit tests with **Jest** (80%+ coverage), adding in-depth **CloudWatch** logging/monitoring, and authoring comprehensive documentation for future engineers.

Better Place Drones: Georgia Tech XPRIZE Wildfire Team Aug 2024 – Present
Georgia Tech VIP Program *Atlanta, GA*

- Led 5-person fire detection subteam within 40+ member Georgia Tech team competing in $11M XPRIZE Wildfire challenge, currently achieving top 15 worldwide ranking out of 300+ teams.
- Curated and annotated 350+ thermal infrared and RGB images, establishing ground truth dataset for wildfire detection model training across diverse environmental conditions.
- Developed CNN-based wildfire detection system achieving 90% accuracy in detection and severity classification for real-time autonomous drone monitoring.

Projects

ML-Powered Audio Recognition | *Python, Librosa, Numpy, PyTorch, GitHub* October 2024 – December 2024

- Collaborated with a five-member team to develop **Python** scripts to identify songs based on ten-second hummed samples of popular melodies.
- Implemented audio normalization techniques to transform hummed input into sine waves to enhance accuracy by tonal inconsistency and background noise elimination.
- Leveraged **Librosa** and **NumPy** to preprocess audio, generate multiple optimized variations, and create Mel-spectrograms for efficient neural network and machine learning analysis.
- Designed, trained, and fine-tuned a Convolutional Neural Network (CNN) with ReLU activation functions from **PyTorch** which achieved 98.70% training accuracy and 95.24% testing accuracy with minimal cross-entropy loss.

Georgia Tech Meal Tracker/Projector IOS App | *Swift, SwiftData, GitHub* July 2024 – Sep 2024

- Developed a **Swift** application for Georgia Tech students to track meal plan balances and predict swipe depletion, featuring an intuitive UI/UX for inputting swipe balance, dining days, and eating frequency.
- Implemented calculation functions to determine the exact date of meal swipe exhaustion based on consistent eating patterns, enhancing students' ability to manage their meal plans effectively.
- Achieved cost savings of $553 to $1,101 per student by preventing unnecessary meal swipe purchases, demonstrating tangible financial impact for users.

Technical Skills

Languages: Java, Typescript, Python, Swift, Dart, C, Assembly, Unix
Frameworks: React.js, Jest, PyTorch, Flutter, JUnit, SwiftUI, SwiftData, RapidAPI
Developer Tools: GitHub, Visual Studio Code, Jupyter Notebook, Google Colab, Xcode, IntelliJ, PyCharm
Libraries: AWS SDK, AWS CDK, Pandas (familiar), NumPy, Matplotlib, Sklearn, Librosa