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EDUCATION

Emory University • *Bachelor of Science in Computer Science, Minor in Applied Math*

Atlanta, GA

- **GPA:** 4.0/4.0, **Dean's List:** Fall 2022, Spring 2023, Fall 2023, Spring 2024 August 2022 – Present
- **Coursework:** Data Structs. and Alg., Comp. Arch., Algorithms, Lin. Alg., ML, Comp. Ling., Data Mining, Practicum

EXPERIENCE

Georgia Tech Research Institute, Electronic Systems Laboratory Test Engineering Division

Atlanta, GA

Software Engineer Intern

May 2024 – August 2024

- Built custom test visualizer for open architecture test engineers in 2 projects allowing for convenient anomaly detection
- Ported 180+ protocols into Pydantic models to automatically parse and validate variable-length structs in binary logs
- Wrote end-to-end tests providing full functionality checks and product compliance against sponsor requirements
- **Technologies:** Python, FastAPI, SQLAlchemy, Pytest, Playwright, Svelte, TypeScript, Tailwind CSS, CI/CD, Git

Kerygma Digital

Remote

Software Engineer Intern

June 2023 – July 2023

- Reduced service response latency by 60% (~400 ms) for 5m BibleBot users by implementing a TTL HTTP cache in C#
- Decreased HTML and JSON cache usage by 99% and 39% by creating custom middleware to strip stored responses
- **Technologies:** C#, ASP.NET, .NET Core, MongoDB Atlas, Discord API, CI/CD, Git, Unit Testing, Regression Testing

PROJECTS

Personal Website

See andrewtlu.github.io for more projects and info!

- Researched and designed a personal portfolio to gain frontend/design experience and inform Project Emory lessons
- **Technologies:** React + Vite, TypeScript, HTML, CSS, Figma, Firefox/Chrome Developer Tools

RIDEemory (WIP) • [github/project-emory/RIDEemory](https://github.com/project-emory/RIDEemory)

- Build comprehensive rideshare solution for Emory students through a self-updating database of ride information
- Used to teach Project Emory members MVC, ReST, databases, design, frontend frameworks, and version control
- **Technologies:** Java, Spring Boot, Spring Security, MongoDB, Firebase, React, Figma, GitHub Actions, Google Maps API

Canyon • [github/emory-canyoneers/canyon](https://github.com/emory-canyoneers/canyon)

- Implemented full-stack messaging app facilitating casual, in-person debates among new friends to build connections
- **Technologies:** Java, Spring Boot, MongoDB Atlas, Firebase, React Native, Docker, Bash, AWS EC2

Resume Revamper • [github/andrewtlu/resume-revamper](https://github.com/andrewtlu/resume-revamper)

- Created an LLM-powered resume editor to minimize low-level text decisions and focus on big-picture content goals
- **Technologies:** React, Python, Flask, LuaLaTeX, Anthropic API, Prompt Engineering, Natural Language Processing

Efficient Speech Emotion Classification • [github/ShaneBerhoff/cs334-project](https://github.com/ShaneBerhoff/cs334-project)

- Built Python toolkit to transform audio and achieve 78.6% accuracy over 6 emotions with ImageNet transfer learning
- **Technologies:** Python, Pytorch, Numpy, Convolutional Neural Networks, Transfer Learning, Deep Learning

LEADERSHIP AND COMMUNITY ENGAGEMENT

Emory Hack4Impact

Atlanta, GA

Director/Software Engineer

December 2023 – Present

- Lead Emory volunteers in building software solutions for nonprofits and equip them with tools for advancing social good
- Design & develop an internal operations suite providing Odyssey Family Consulting with a unified employee experience
- **Technologies:** React, Next.js, Prisma, Supabase, Figma, DevOps

Project Emory

Atlanta, GA

Cofounder/Director of Projects/Secretary

May 2023 – Present

- Craft engaging curriculum to enhance technical proficiency and provide working experience to 30+ Emory students
- Mentor 2 CS students by providing peer-programming opportunities, coursework guidance, and pre-professional help

ADDITIONAL SKILLS AND INTERESTS

Software: (*proficient*): Python, Java, JavaScript/TypeScript, HTML/CSS, Git (*familiar*): Bash, Batch, C, C#, Go

Interests: Backpacking, Grass Volleyball, Technical/Modded Minecraft, GNU/Linux, Performance Arts (Oboe and Guitar)