

Austin Richard Chemelli

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Education

Georgia Institute of Technology

Atlanta, GA

Master of Science in Computer Science (4.0 GPA)

Expected Graduation: December 2024

Bachelor of Science in Computer Science (4.0 GPA, Faculty Honors)

December 2023

Professional Experience

Elph

Software Engineer

May 2024 - Present

- Overhaul the recommendation engine for a live music companion app designed for C3 music festivals, introducing numerous features including group scheduling to intelligently merge user preferences, driving increased engagement and growth.
- Elevate the algorithm's accuracy and performance by integrating extra data points, rigorously testing, and optimizing processes, resulting in a 10x improvement in runtime efficiency and a significantly elevated user experience.

Arctype

Software Engineer - AI/ML

January 2024 - Present

- **Magphai**: Lead the creation of a scalable, real-time anomaly detection architecture for cloud data protection, conducting in-depth testing to identify and select the optimal algorithm, ensuring accurate threat detection and system security.
- Build a robust data processing pipeline and ensure seamless integration within the app, enhancing overall system performance and reliability.
- **Darksail**: Design a proprietary anomaly detection model for assessing risks of JA4+ TLS fingerprints, incorporating domain expertise and a comprehensive adversarial database to protect organizations from session hijacking, malware, and bot activity.
- **Raiquun**: Construct automated logic-based tagging methods for Heroku data services, simplifying the management of large-scale data solutions by adding an abstraction layer to the Heroku CLI.

Lockheed Martin Aeronautics

Fort Worth, TX

AI/Machine Learning Engineer Intern

May 2023 - August 2023 & May 2022 - August 2022

- Developed and deployed an automated labeling solution for video segmentation and tracking, reducing manual labeling efforts and enhancing model training efficiency.
- Built and integrated a Super Resolution neural network service, increasing image resolution by 4x and improving classification model accuracy by 30%, deployed on a ground station for verification and visualization.
- Conducted data analysis and preprocessing on large datasets, optimizing data curation and enhancing information gain.

Leadership, Research, and Projects

Georgia Institute of Technology

Atlanta, GA

Graduate Teaching Assistant

January 2023 - Present

- Oversee recitation sessions and TA coordination for Artificial Intelligence and Discrete Mathematics courses, focusing on simplifying complex concepts and ensuring seamless execution of programming assignments.
- Provide dedicated support to students during office hours, addressing individual learning needs and technical challenges.

Vertically Integrated Projects (VIP) Undergraduate Researcher

January 2022 - May 2023

- Developed novel neuromorphic computing solutions for numerous OpenAI Gym environments.
- Conducted performance and accuracy testing on these neuromorphic approaches, identifying their strengths and limitations in solving complex problems compared to traditional reinforcement learning methods.

Spotify Companion Web App

Personal Project

- Develop a full-stack web application (React frontend, Flask backend) for unique interactions with Spotify libraries and the entire music catalog, featuring robust music search capabilities using data from the Spotify Web API.

Technical Skills

Programming Languages: C, C++, HTML/CSS, Java, JavaScript, Python, SQL, Swift

Tools and Technologies: Agile, AWS, Django, Docker, Git, Linux/Bash, Nginx, PyTorch, Rest API, React.js, TensorFlow