Taehoon (Ethan) Lee

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Education

Emory University — Aug 2023 - May 2026
Computer Science (BS), Psychology (BA) — *Atlanta, GA*
- GPA: 4.0 (Dean's List all semesters)
- Relevant coursework: Data Structures & Algorithms, Computer Architecture, Algorithm Analysis, Machine Learning, Database Systems, Linear Algebra, Discrete Structures

Experience

Software Development Intern — Jan 2025 – Present
UrsaTech — *Remote*
- Spearheaded integration of a 3D game and autonomous driving interface into an AI-powered educational platform, enabling interactive learning of programming concepts using **Next.js**, **TypeScript**, and **Three.js**
- Implemented user authentication using **AWS Amplify** to enhance platform security and accessibility

Machine Learning Research Intern — Jun 2024 – Present
National Science Foundation — *Atlanta, GA*
- Developed a benchmark to evaluate 8 visual explanation methods for deep learning models, leveraging **PyTorch**, **Torchvision**, and **OpenCV** to assess interpretability, faithfulness, and stability across various computer vision architectures
- Designed and deployed a scalable visual explanation pipeline for data preprocessing, explanation generation, and method evaluation, utilizing **Python** and **Gradio** to enhance usability and streamline experimentation
- Contributed to peer-reviewed research published on arXiv and co-organized an AAAI workshop on foundation models and LLMs in biological research, facilitating discussions on cutting-edge advancements and applications

Data Science Research Assistant — Nov 2023 – Present
Emory University CAV Lab — *Atlanta, GA*
- Conducted 60-person crowdsourced research on barriers to data engagement in music streaming, employing **Python**, **Pandas**, and **SciPy** for statistical analysis to uncover behavioral patterns and user interaction insights
- Designed and developed an interactive data visualization tool using **HTML**, **JavaScript**, **Spotify API**, and **D3.js**, enabling dynamic exploration of streaming history and enhancing user engagement with personal data

Software Development Intern — Jun 2024 – Dec 2024
eStreamly — *Atlanta, GA*
- Redesigned and implemented 17 online shopping interfaces, using **TypeScript** and **AngularJS** to enhance user experience
- Developed and maintained a **C#** and **.NET** application, leveraging **Azure DevOps** pipelines for CI/CD automation, ensuring seamless testing, builds, and deployments across multiple environments
- Collaborated in a **SCRUM-based Agile team** of 3 developers, actively contributing to weekly sprints, prioritizing rigorous testing, and maintaining clear communication with stakeholders to deliver high-quality software solutions

Projects

Spotify Warped: Personal Data Engagement in Music — Nov 2023 – Present
- Co-authored research submitted to 3 global conferences (CSCW, CHI, IMWUT) under Dr. Emily Wall on barriers to data engagement in music streaming, exploring how casual users interact with passive data insights like Spotify Wrapped
- Analyzed behavioral differences between casual listeners and Quantified Self users, examining 7 factual and behavioral insights using **Python** and **JavaScript** to assess engagement patterns

Emory Hacks: Inaugural Hackathon at Emory — Sep 2024 – Jan 2025
- Co-founded Emory's hackathon group as the technology lead alongside a multidisciplinary team of ambitious students, attracting over 200 participants and sponsors including JPMorgan, Hyundai, and WolframAlpha
- Spearheaded hackathon website creation using **React.js** and **JavaScript**, showcasing dynamic animations built with **Motion for React (Framer Motion)** and **GSAP**

Technical Skills

Languages: Python, JavaScript, TypeScript, Java, C/C++, C#, Go, SQL, NoSQL, Swift, HTML, CSS/SCSS, Tailwind CSS, Bash, R, Markdown, LaTeX, ARM Assembly
Web Frameworks: Next.js, React, SwiftUI, AngularJS, Gradio, Spring Boot, Flask, .NET
Developer Tools: VS Code, XCode, Jupyter, Firebase, MongoDB, Postman, Linux/Unix, Figma, Node.js, Git, HTTP, REST, AWS, Azure
Libraries: PyTorch, Torchvision, OpenCV, TensorFlow, Pandas, NumPy, SciPy, jQuery, D3.js