

Hunter Liu

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EDUCATION

Georgia Institute of Technology

2025/08 - Present

B.S. in Computer Science

Rensselaer Polytechnic Institute

2023/09 - 2025/05

B.S. in Computer Science, GPA: 3.9/4.0, Dean's Honor List

Coursework: Data Structures, Computer Org., Principles of Software, Intro to Algo, Foundation of Computer Science

WORKING EXPERIENCE

Moyu Corporation

2025/05 - Present

Software Engineer Intern

- Rolled out a behavior-driven recommendation system for a North American resale platform by aligning browsing and purchase patterns with lightweight retrieval logic, elevating homepage relevance and boosting user retention.
- Integrated real-time recommendation results into the **React**-based user portal by dynamically rendering 1.6M+ scored listings, enabling personalized homepage feeds and boosting average user dwell time by 18%.
- Optimized a **two-tower retrieval model** to handle burst traffic and noisy catalog queries, leveraging async embedding and lightweight encoders to cut inference latency by 3× and maintain real-time ranking stability in production.
- Built modular data pipelines to refresh user/item features and embeddings, enabling real-time inference and daily updates via unified **PostgreSQL** integration, improving recommendation relevance and model responsiveness.

Lightspeed Technology Enterprise

2024/05 - 2024/08

Software Engineer Intern

- Revamped an internal configuration tool for PCB workflows using **React** and **Zustand**, replacing a legacy UI with a more intuitive layout and real-time updates, reducing operator errors and misconfigurations.
- Refactored brittle configuration endpoints into modular, versioned **Fastify** APIs, decoupling backend logic from UI rendering and enabling seamless, scalable UI updates across agile release cycles.
- Spearheaded a flexible data layer with **MongoDB** to centralize form data and layout metadata in PCB tools, enabling rapid iteration, safe rollbacks, and schema-free updates that significantly reduced UI deployment errors and backend reliance.
- Enforced field-level data validation and role-based access safeguards in MongoDB-backed forms, preventing malformed inputs and unauthorized edits that previously caused UI crashes and misrouted PCB submissions.

PROJECTS

CourseGraph: Full-Stack Academic Planning & Collaboration Explorer

2025/01 - 2025/04

- Orchestrated the system design and full-stack integration of CourseGraph, enabling students to explore 200+ curriculum nodes and uncover optimal course paths and professor networks, improving academic transparency and planning efficiency.
- Crafted a responsive planning interface with **React** and **D3.js**, featuring real-time prerequisite graph rendering, course filtering, and contextual tooltips to streamline navigation across complex academic structures.
- Redesigned backend services for an academic planner to handle prerequisite and advisor queries, using **Spring Boot** and **GraphQL** to enable real-time search and cut query latency by 30%.
- Modeled prerequisite graphs using **JGraphT** and **StreamEx**, enabling relevance-based path scoring that surfaced the most efficient course sequences for degree planning.
- Reorganized prerequisite and course grouping tables in **PostgreSQL** to fix slow query performance when filtering by department and graduation track, reducing dashboard load time from 1.5s to under 1s.

SKILLS

Language: Java, C/C++, Python, Javascript, TypeScript C#, HTML/CSS, SQL, Bash, Go, Ruby, Scala

Tech: Linux, Shell, Springboot, Pytest, Django, Spark, MongoDB, Node.js, Kubernetes, AWS, Redis, Pytorch, JavaFX