

Ethan Ngai

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EDUCATION

Cornell University

May 2028

Bachelor of Arts in Computer Science

Ithaca, NY

- **GPA:** 4.0
- **Relevant Coursework:** Data Structures & Algorithms, Machine Learning, Systems Programming, Database Systems, Functional Programming, Discrete Math, Linear Algebra, Multivariable Calculus

WORK EXPERIENCE

Genworth Financial

May 2026 – Present

Cloud Engineering Intern

Richmond, VA

- Building cloud secret rotation automation with **Azure** Functions in **TypeScript**
- Designed system infra integrating **AWS** Secrets Manager/Azure Key Vault, **Microsoft Entra ID**/Graph
- Developing notification & **CI/CD** pipelines with **Kubernetes**, PostgreSQL, GitLab; internal frontend with **React**

Cornell Bowers College of Computing and Information Science

January 2026 – Present

Teaching Assistant

Ithaca, NY

- Leads discussion section for CS2110 (Data Structures & Algorithms) with over 20 students
- Grades programming assignments and exams, hosts office hours

Cornell XR Project Team

November 2025 – Present

Software Team Member

Ithaca, NY

- Developing persistent memory framework for smart glasses with conversation transcription and facial recognition
- Creating **RAG**-based semantic recall with **pgvector**, FastAPI, SQLAlchemy, and OpenAI API

VCU College of Engineering Research Lab

July 2024 – May 2025

Machine Learning Research Assistant

Richmond, VA

- Built software in **Python** utilizing Meta Quest 3 depth sensors to train machine learning model, created workflow to translate WiFi-Sensing channel state information to depth images
- Created AI model with **PyTorch** to denoise simulated signal, improved accuracy by nearly 40%

PROJECTS

Sharpnd

- Built adaptive studying and tutoring platform using **TanStack Start**, **React**, **Drizzle ORM**, **PostgreSQL**
- Created a **CI/CD** pipeline for edge deployment to **Cloudflare Workers**, Neon, and R2 storage
- Implemented user authentication and email with Better Auth and Google **OAuth** API

SafeStep

- Created full-stack crowdsourced accessible walking/driving mapping software for 2026 Hack@Brown
- Built backend RESTful API and CRUD actions with **Spring Boot** and **PostgreSQL/PostGIS**
- Created **React** frontend, using Leaflet and OpenStreetMap for mapping display, Nominatim for name-location search
- Used pothole segmentation detection model and Google Gemini API to evaluate danger levels of user-submitted photos

Home Archery

- Built mixed reality archery game using **Meta XR SDK**, importing 3D room scans for environment-aware collisions
- Designed player scoring logic, physics interactions, and UI/UX using **C#** and **Unity**

SKILLS

- **Programming Languages:** Java, Python, JavaScript/TypeScript, SQL, C#, OCaml, C/C++, HTML, CSS
- **Frameworks:** Spring Boot, React, TanStack Start, Next.js, FastAPI, Flask, PyTorch
- **Tools:** AWS, Azure, PostgreSQL, Docker, Cloudflare, Supabase, Vercel, Claude Code
- **Software:** Git, Linux, Postman, Unity, Photoshop, Illustrator, Microsoft Office 365, LaTeX