

# VINCENT QI

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## EDUCATION

**Carnegie Mellon University**  
*BS, Computer Science*

Pittsburgh, PA  
*Aug. 2024 – May 2028*

## EMPLOYMENT / EXPERIENCE

### Fullstack, Founding Software Engineer

July 2022 – Present

*EduBeyond Education Inc.*

*Vancouver, BC*

- Developed EduBeyond's new **complete fullstack Learning Management System software in 2 months**.
- Engineered token parser in **TypeScript** that converted and displayed OpenAI SDK output from XML to real-time frontend React components.
- Scaled API routes and PDF **optical character recognition (OCR) pipeline** to generate **100,000+** personalized real-time practice questions by architecting a minimal-latency **AWS S3 and PineconeDB file storage system**.
- Architected **Retrieval Augmented Generation** pipeline with the **OpenAI SDK** and developed semantic vector reranking algorithm using logit bias.
- Integrated CI/CD pipelines using GitHub, Vercel, and Fly.io to deploy **massively scalable cloud infrastructure**.
- Led, managed, and collaborated within an AGILE team to push out stable feature updates weekly.

### Software Developer

September 2024 – Present

*ScottyLabs*

*Pittsburgh, PA*

- Spearheaded integration of LevenDist algorithm with mapping software to improve search query results.
- Developed React and TailwindUI frontend to interface and display geolocation and mapping algorithm results.

## PROJECTS

### EduBeyond

- Deployed globally to Indonesia's **largest telecommunications company** with over \$ 400 M ARR.
- Formally endorsed by the **United Nations** and the *Office of the Presidency of Indonesia* as a high impact EdTech startup.
- Independent Software Vendor (ISV) partner with **Google** and **Amazon's** Edstart portfolio.
- Won 1st at global Moonshot awards (**1st of 1500 companies**), finalist for Samsung's Solve for Tomorrow.

### Blockout

- Developed a published Minecraft minigame mod using **Java** and the Forge API to interface with the game's source code that adds a multiplayer bingo minigame.
- Utilized **Gradle** to handle compilation and deployment across multiple Minecraft versions.

## RESEARCH / PUBLICATIONS

### Multimodal Retrieval Augmented Feature Extrator — Co-First Author

Univeristy of Michigan, AI Symposium

- Architected education-oriented **Chain of Thought** and **Retrival Augmented Generation LLMs** with Berkeley AI Lab (BAIR) researchers.
- Engineered a **YOLOv8** based pipeline that converted science textbooks into a novel dataset for experimentation.
- Refined and processed experiment results using **Python** and **NumPy** for in-depth analysis.

## TECHNICAL SKILLS

**Languages:** TypeScript/JavaScript, Python, Java, Swift, C/C++, C#, HTML/CSS

**Frameworks:** ReactTS/JS, Node.js, Express, TailwindUI, SwiftUI, Unity

**Databases:** Postgres SQL, MongoDB, PineconeDB

**Developer Tools:** Git, Vercel, OpenAI SDK, Docker, AWS, Gradle, Websocket