Nick Trinh

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Education

Fordham University Expected May 2027

BSc in Mathematics and Computer Science ***GPA: 3.66/4.0***

- **Coursework:** Data Structures, Computer Algorithms, Object-Oriented Programming, Operating Systems, Database Systems, Data Communications & Network, Introduction to Computer Science
- **Honors & Awards:** UBS Pitch Competition (3rd Place), Faber Award (full-tuition), Dean's List

Experience

StudyFetch January 2025 – Present

Software Engineer Intern *New York, NY*

- Worked with a team of 5 on a AI explainer generator service using **TypeScript**, **AWS S3**, and **Python**, serving **50k** users, generating detailed videos/podcasts on a topic, and optimized code to save **$10k** monthly
- Added a AI mindmap generator feature for visual learning using **TypeScript**, **React**, and **Claude API**, processing **100+** study materials daily, generating connected concepts, and increasing user study retention by **32%**
- Developed an interactive AI toy for children that converses naturally using **RaspberryPi** and **Linux**, implementing offline STT, TTS, and local LLM inference with **llama.cpp**, increasing learning engagement across **30+** testers

OHOS Media October 2024 – December 2024

Software Engineer Intern *New York, NY*

- Collaborated with a team of 3 to build and deploy a scalable AI job application helper platform with **Next.js**, **Node.js**, **AWS**, and **MongoDB**, achieving **2000+** adoptions among Fordham students within the first year
- Built a resume and cover letter generation system using **OpenAI API** and **LangChain**, reducing application preparation time by **34%**, processing and generating **7000+** documents monthly for student job seekers

Rainscales June 2024 – August 2024

AI Engineer Intern *Remote*

- Engineered **YOLO**-based computer vision system to monitor and track **1000+** workers' alcohol test daily with **92%** accuracy in various conditions, while optimizing model size and inference time by half with **TensorRT**
- Created Gradio GUI for model testing and inference, enabling non-technical team members to conduct tests and reducing feedback cycles, maintaining production-grade accuracy across **20+** model versions
- Containerized deployment of AI models with **Docker** and **NVIDIA Triton Server**, improving projects scalability

Fordham Robotics & Computer Vision Lab February 2024 – Present

Research Assistant *New York, NY*

- Conducted research combining **Visual Place Recognition (VPR)** with **YOLO** and various neural networks for robotic navigation and visual homing, achieving **86%** accuracy in complex environments with dynamic landmarks
- Worked with 4 other researchers to develop autonomous robotic systems using **ROS2** and **C++**, enabling automated experimenting with high reliability in complex testing environments

Projects

LinguaWealth (3rd Place UBS Pitch 2024) | *Python, AWS APIs, Azure APIs, OpenCV, OpenAI API*

- Worked with finance students and advisors to develop a multilingual communication platform, helping wealth managers advise international clients in real time with **88%** accuracy and winning **$3k** prize
- Implemented AI-powered sentiment analysis and natural language processing to extract actionable client insights, increasing wealth manager productivity and improving cross-cultural client communication effectiveness

E-commerce Website | *Node.js, React.js, Express.js, MongoDB, Stripe, Tailwind CSS*

- Built a complete online store platform with secure payment processing, user and seller accounts, and an administrative dashboard with a responsive and user-friendly shopping experience with analytics tracking
- Engineered the platform using **MERN** stack, implemented **Redis** caching with **JWT** authentication and **CRUD** operations and a storefront and admin dashboard using **React** and **Tailwind** with Stripe integration for checkout

Technical Skills

Languages: Python, C++, C, JavaScript, TypeScript, Golang, HTML/CSS

Frameworks: React.js, Next.js, Node.js, Express.js, Prisma, MongoDB, PostgreSQL, PyTorch, OpenCV, Tailwind CSS, Redis, Git, Docker, AWS, Google Cloud, ROS2, Linux

Concepts: Software Engineering, Frontend, Backend, Machine Learning, Computer Vision, Agile Methodologies, Containerization, Testing, CI/CD, Scalability