

Phi Nguyen

US Citizen | (224) 435 8972 | phnguyen@andrew.cmu.edu | linkedin.com/in/phi-nguyen-h | github.com/Ph1so

EDUCATION

Carnegie Mellon University

B.S., Computer Science - GPA: 4.0/4.0

Pittsburgh, PA

Expected: May 2028

WORK EXPERIENCE

Sanofi

Machine Learning Engineer Intern

Framingham, MA

Jun. 2025 - Present

- Cut drug manufacturing costs by **15%** by training a closed-loop multi-robot **Bayes Opt (BoTorch)** system
- Saved **20+ hours** and **\$10K+** in reagent cost by storing checkpoints in **SQL** to resume **Bayes Opt** training
- Built REST API (**Spring Boot**) to interface robot **Java** software and **Python** script; tested API via **Postman**

NASA

Software Engineer Intern

Merritt Island, FL

Jan. 2025 - May 2025

- Deployed fine-tuned computer vision model to **HoloLens** using **Azure**, enabling **AR**-guided site visits
- Cut prototyping costs by **\$100K+** annually by developing custom **Unreal Engine (UE5)** software for hand-object manipulation for virtual simulation; now standardized across **10+** simulation teams at NASA
- Co-inventor on provisional patent for software framework; authored peer-reviewed paper at **IEEE SMC-IT**
- Networked **Vicon** server to stream real-time data to **UE** clients for simulation; constructed mocap volume

RESEARCH EXPERIENCE

MIT - Lippman Lab

Undergraduate Research Intern

Cambridge, MA

May 2025 – Present

- Achieved **85%** accuracy forecasting user behavior across **Netflix**, **YouTube**, **TikTok** via **TimesFM** model
- Improved model accuracy by **10%** by revamping scraping pipeline using **Selenium** and **OpenAI API**
- Analyzed user and competitor **time series** data to identify behavioral gaps and strategic overlaps; insights used to refine **monetization** strategies for **3** large partner businesses in the Boston area
- Saved **10+** hours weekly across team by containerizing dev/prod environments with **Docker**

Stanford University - Amin Lab

Undergraduate Research Intern

Stanford, CA

Nov. 2024 - Jan. 2025

- Designed and trained **CUDA**-accelerated deep neural network inspired by SpliceAI using **Tensorflow**; achieved **99.7%** accuracy and deployed in drug discovery research
- Collaborated with engineers to build a scalable data processing pipeline on **AWS Batch** using **S3** and **EC2**
- Cut resource costs by **20%** by refactoring **Nextflow** pipelines to parallelize processing across **3PB+** of data
- Developed **R** scripts to interface **Ensembl's MySQL** server and construct mappings for quantification

MIT - Esvelt Lab

Undergraduate Research Intern

Cambridge, MA

Apr. 2024 - Dec. 2024

- Built agentic AI system via **LangChain** for natural language control of robots; presented at **MIT BioMAN**
- Developed open-source **Python** automation software for wet lab robots; adopted by **over 1,000 researchers** across companies (Sanofi, Retro Bio, T-Therapeutics) and institutions (MIT, Duke, Stanford)
- Expanded automation capabilities by reverse-engineering centrifuge protocols with **Wireshark** and building a user-friendly **Python** SDK using **pylibftdi**; adopted by **2+** companies

PROJECT EXPERIENCE

Feedback Categorizer for Church: Text, Speech, and Image Recognition - GitHub

Jul. 2024

Technologies: React, Next.js, Firebase, OpenAI API, Whisper, Hugging Face

- Built a full-stack app to help my church automatically sort community questions and suggestions (text, voice, or images) into custom categories; saves volunteers' time each week by reducing manual sorting

TECHNICAL SKILLS

Languages: Python, C++, C, Java, JavaScript, HTML/CSS, SQL, R, Nextflow

Software: Git, Linux, AWS, TensorFlow, BoTorch, LangChain, CUDA, Azure, Docker, Unreal Engine, React, Next.js, Spring Boot, Flask, PostgreSQL, MySQL, Postman, Blender, Wireshark

Hardware: Vicon, HoloLens, Oculus, HTC Vive