

# Thuy Pham

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## EDUCATION

**Cornell University**, College of Engineering

Ithaca, NY

**Bachelor of Science, Computer Science**

Expected May 2024

- **GPA:** 4.18 / 4.3, Dean's List, Full-Ride Scholarship
- **Coursework:** Data structures and Algorithms (TA), Probability and Statistics (TA), Computer System (TA), Stochastics Process, Machine Learning (TA), Computer Network, Functional Programming

## AWARDS

- First Prize - National ICPC Contest
- 2-time USAMO Qualifier
- IOI Team Selection Test Qualifier
- Codeforces Master - Top 3%

## WORK EXPERIENCE

**Amazon**

Sunnyvale, CA

Software Engineer Intern

May 2023 - August 2023

- Enhanced regression testing by incorporating concurrency, reducing 90% triggering time per Test on Demand.
- Conducted thorough validation of AWS account permissions, ensuring secure access across multiple accounts.
- Developed AWS Lambda backend to periodically backup 500,000+ daily production transactions, generate dynamic test plans, and upload them to S3 and DynamoDB, ensuring successful lambda triggering for data ingestion.

**VinAI Research**

Hanoi, Vietnam

Software Engineer Intern

June 2022 - September 2022

- Developed a Computer Vision labeling tool annotating **50+ unique objects consistently** for each of **300,000+** images.
- Optimized per click annotation time by **91%** after refactoring inefficient microservices and expanded the annotation usage from static 2D images to 3D cuboids by initiating the replacement of Keras with TensorFlowJS.
- Designed an API expanding single to multi-instance view per canvas, allowing concurrent annotation of multi-images.

**The University of Texas at Austin, Oden Institute**

Austin, TX

Research Assistant

May 2021 - September 2021

- Examined effectiveness of social distancing against COVID spreading rate between Stochastic / Deterministic models.
- Fine-tuned hyper-parameters of three ML algorithms reaching **optimal minimum Mean Square Error of 0.32** when assessing ocean storms' seismic data against the existing dataset.

## PROJECTS

**Cornell Apartment Finder**

Ithaca, NY

Open-Source Contributor

February 2021 - December 2021

- Re-designed the school's apartment review website **reaching 5000+ students** with Material UI and ReactJS.
- Ideated and implemented Fuse.js, Express.js optimizing search query and data retrieval response **from 3s to 0.1s**.

**Cornell Study Space Finder**

Ithaca, NY

Backend Developer, Team of 3

January 2021 - August 2021

- Developed an iOS app connecting **7 libraries and ~450 study spaces**, helping **10000** students find a room real-time.
- Architected 5 relational databases connecting users, libraries, images, rooms, booking history and streamlined the image uploading process **to instant time** by self-designed API.

## ADDITIONAL INFORMATION

**Languages:** C++, Python, Java, JavaScript

**Framework and Technologies:** Pandas, Numpy, Scikit-Learn, TensorFlow, Flask, React, NodeJS, Docker