

Huy Hoang

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EDUCATION

Amherst, MA **University of Massachusetts Amherst** Sep 2018 – May 2022
Bachelor of Science | Majors: Computer Science, Mathematics; GPA: 3.84

- Member of Commonwealth Honor College, Departmental Honor
- **Courses taken:** Object Oriented Programming, Data Structures and Algorithms, Operating Systems, Introduction to Computation, Web and Mobile Development, Artificial Intelligence, Machine Learning, Database Systems
- **Honors and awards:**
 - Dean's International Scholarship: given by Dean Laura Hass to 7 out of 850 CS students with a history of excellent academic achievement, passion for computer science.
 - Dean's List for all semesters

WORK EXPERIENCE

Nuance Communications Inc. (Microsoft) Burlington, MA
Software Engineer Intern – NDEP R&D May 2021 – August 2021

- Played an integral role in a ground-up rebuild of the Nuance live communication services.
- Migrated Nuance Real Time service's logging framework from Log4j to Log4j2, fixed **50+** warnings and potential problems.
- Implemented an automation testing framework, improved tests runtime by **30%** and increased service uptime to **99%**.
- Contributed creative ideas in optimizing strategies that increased the precision rate by **15%**.
- **Technologies:** Java, Spring, Redis, Azure, SQL, WebRTC

University of Massachusetts Amherst Amherst, MA
Undergraduate Research Assistant Jan 2020 – Present

- Under the supervision of Professor Marco Serafini in the Data Systems lab to accelerate graph sampling.
- Built a graph parser, optimizer, and tools for effective deployment of trained deep learning models, improved efficiency by **4-6 times**.
- **Technologies:** Python, C++, CUDA, TensorFlow, dgl

Undergraduate Teaching Assistant Sep 2019 – Present

- Courses: **Computer Networks** – Fall 2021, **Reasoning Under Uncertainty** – Fall 2020, Spring 2021, **Introduction to Problem Solving** – Fall 2019.
- Duties: Organized weekly labs with 50 students and hosted office hours, graded homework and exams, led a team of four other TAs.

Cybozu Inc. Ho Chi Minh City
Software Engineer Intern – Core Dev and Infrastructure July 2020 – August 2020

- Developed a MongoDB database that can process up to **millions** of real time group records, implemented a caching design to handle duplication which reduces memory usage by over **30 times**, from **8GiB** to **256MiB**.
- Developed a large-scale web application for **distributed** system where users can manage food orders within groups. Handled frontend and backend using React/Redux and Node.js, **HTTP** with **REST APIs**.
- Deployed the developed applications on Heroku and integrated CircleCI to **automate scaling** and update.
- **Technologies:** Node.js, npm, Express.js, React/Redux, MongoDB, Redis, Heroku

Nordic Coder Ho Chi Minh City
Software Engineer Intern May 2019 – August 2019

- Built an ecommerce application that manage online and offline coding courses for more than **1000 users**.
- Built a subsystem where the company can generate event invitations and customers can receive those invitations.
- Automated the gift vouchers sending process, which reduced the order processing time from around **1 hour** to at most **60 seconds**.
- **Technologies:** JavaScript, PHP, MySQL, HTML/CSS, WordPress, Google Cloud

PROJECTS

Android Market (2020): A comprehensive analysis of the Android app market by comparing over **10000** apps in Google Play across different categories, using **seaborn** and **matplotlib** for plotting, **pandas** for analysis. Giving **recommendations** based on current trends in users' purchased apps as well as providing **statistical** analysis.

Math bot (2019): Built a **system** that can communicate with servers and solve the math problems that the server sends. The server sends the math problems and the clients reply with solved answers. Used **C** and **Linux socket API**

Online Swiping (HackUMass 2019): Built a web application that supports swipe up and check for meal plans before eating at the dining halls. Users can also keep track of the number of meal swipes left and the record of their frequencies of visits for each dining hall. Used **HTML/CSS/JavaScript, Python**

SKILLS

Programming Languages: Python, C++, C, Java, Go, JavaScript, Shell Scripting, MATLAB

Technologies: Spark, Kafka, Redis | Node, React, Angular | Android | PostgreSQL, MongoDB

Others: Linux, Docker, Kubernetes, Azure, AWS