LONG HUYNH

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EDUCATION

University of Massachusetts Amherst ⟶ August 2020 - May 2024 (Expected)

B.S. in Computer Science and Mathematics ⟶ GPA: 3.80/4.00

- Competed in the **International Collegiate Programming Contest (ICPC) Northeast North America Regional 2021** on behalf of the UMass Amherst team and placed **6th out of 120 teams** during the 8-hour competitive programming
- Selected for **Chancellor's Award, Commonwealth Honors College,** and **Dean's List** for excellent academic performance in all semesters
- **Relevant Coursework:** Data Structures and Algorithms, Linear Algebra, Discrete Math, Probability and Statistics, Programming Methodology, Computer System Principles, Web Programming with Python and JavaScript, Full-Stack Web Development with React Specialization, Operating System, Artificial Intelligence, Machine Learning, Computer Vision, Information Systems

SKILLS

- **Programming Languages**: Python, JavaScript, Java, C/C++, Scala
- **Web Development**: REST API, NodeJS, React, Redux, ExpressJS, Django, Bootstrap, HTML/CSS, Firebase
- **Database**: NoSQL, MongoDB, SQL, PostgreSQL, Pandas, Numpy,
- **Software Development Life Cycle**: Git Version Control
- **Machine Learning**: Convolutional Neural Network, Supervised Learning, Unsupervised Learning, Reinforcement Learning

WORK EXPERIENCE

Dell Technologies, Austin, TX, U.S. ⟶ May 2023 – August 2023

Incoming Software Engineer Intern

Duck Creek Technologies, Boston, MA, U.S.

Software Engineer Intern ⟶ February 2023 – Present

- Work with a team of 8 in Agile methodology to develop an internal system to manage and track working time of employees and managers
- Implement components using React, HTML/CSS, Bootstrap to let employees and managers enter their own working hours daily or see their payrolls
- Upgrade the system to allow only authenticated managers to check their teammates' hours worked or salary earned
- Build backend Restful API using NodeJS, ExpressJS, MongoDB to store users' data and fetch it to the frontend
- Expect to receive around 1000 concurrent users when it goes live; with all performs heavy duty actions such as viewing payrolls in a time duration

Hackathon at University of Massachusetts Amherst, Amherst, MA, U.S. ⟶ November 2022

Team Lead

- Led a team of 4 people to build a platform using React to help students find roommates and housings during the 36-hour Hackathon competition
- Upgraded the site to output the top matched people or houses according to user's filter such as gender, school year, living area, hobby, extra notes, etc.
- Reduced by 80% estimated amount of time for students to successfully get a roommate or housing in comparison with that of the school's website
- Improved interactive UI/UX and advanced to the best 5 out of 62 teams

CATS Academy, Boston, MA, U.S. ⟶ February 2018 – November 2019

Robotics-Software Development Intern

- Implemented a robot using Arduino, an open-source software based on C++, for transporting objects to reduce manual work by 40% operation time
- Increased the range of control of the robot up to 100 feet by connecting the PlayStation4 controller to its movement system
- Redeveloped and optimized the robot's movement speed from 7 mph to 18 mph to present at Tech Fair 2019 at CATS Academy

PROJECTS

Image of Numbers Detector ⟶ March 2023

- Trained different AI models using PyTorch to detect numbers on the MNIST dataset and to compare which model results in the best output
- Created and trained a Multilayers Perceptron model using 3 linear layers and optimizer gradients with an accuracy score of 87.59%
- Developed and trained a model using 2 Convolutional Neural Network (CNN) layers with ReLu activation function to test on the same dataset
- Tuned the CNN's hyperparameters such as learning rate, batch size, n_epochs to achieve an accuracy score of 93.04%

Ristorante Con Fusion ⟶ March 2022 – May 2022

- Designed a single-page web application using Flux design pattern, React, Redux, and JavaScript ES6 to demonstrate a client-side for a restaurant
- Built a backend server using Express.js, RESTful API, MongoDB, etc. to integrate CRUD operations on images of dishes, menu, clients, and comments
- Configured web protocol HTTPS for the page's security and enabled user authentication and verification using OAuth
- Improved UI/UX by using Reactstrap and Bootstrap to control input forms and make the side more responsive

COVID-19 Test ⟶ March 2022 – April 2022

- Simulated using C a large number of people simultaneously contact a local health center via phone calls to make appointments for COVID-19 tests
- Integrated a binary semaphore and a counting semaphore to avoid race conditions and allow mutually exclusive access to a limited resource
- Optimized threads to achieve highly scalable synchronization from 200 to 5000 people make the phone calls at the same time without crash