

# LONG HUYNH

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## Profiles

- LinkedIn: [www.linkedin.com/in/long-h](https://www.linkedin.com/in/long-h)
- Github: <https://github.com/longtu19>

## Education

### B.S: Computer Science And Mathematics, 4.0 GPA

Expected in 05/2024

University of Massachusetts - Amherst

- Commonwealth Honors College Member and Chancellor's Award Recipient: Awarded by University of Massachusetts - Amherst to international students with outstanding achievement in coursework
- Dean's List Honoree 2020/2021

## Skills

- Programming languages: Javascript, Java, Python, C/C++, HTML/CSS
- Tools/Frameworks: Visual Studio Code, Ocelot, JGrasp, Eclipse
- Especially good at mathematics, graph theories, data structures, dynamic programming, testing, and debugging

## Experience

### Software Engineer

02/2018 to 11/2019

#### CATS Academy

Boston

- Taught myself Arduino and built a robot, controlled by PlayStation 4 controller, by using Arduino programming language to move and pick up intended objects. The product was chosen to present at the tech fair 2019 at CATS Academy Boston
- Designed flickering lights, which were featured in the fashion show 2018 at CATS Academy Boston, by using Arduino software combined with a potentiometer, a resistor enabling blink rate of LED. The project saved production staff significant amount of time through optimization

### Team Leader

#### MathWorks Math Modeling Challenge in 2019 and 2020

- Created methodical mathematical models by utilizing Java, mathematical theories and statistics to resolve problems regarding substance use and abuse (2019) and U.S Big Rig Turnover From Diesel To Electric (2020). For example, simulate the likelihood that a given individual will use a given substance
- Enhanced leadership, analytical thinking, and teamwork skills by leading a team of five high school seniors to tackle the challenges within 24 hours

### Volunteer Math Tutor

06/2019 to 08/2019

#### X-Cel Education

Boston

- Gained ability to communicate complex mathematical concepts to learners of diverse skill sets and proficiencies by teaching adults math topics such as derivative, integral, significant figures, geometry, etc
- Helped tutee's pass maths exams for industrial working by assigning homework according to their levels, grading their work, and reporting results to lead instructors.

## Projects

### Code interpreter (11/2021)

- Utilizing Javascript to implement a Javascript interpreter, which takes lines of code wrote in Javascript as input and executes
- Built features for the interpreter to evaluate any expressions with numbers and variables and execute more complicated fragments of Javascript such as returning Fibonacci sequence

### Finite State Machine (11/2021)

- Implemented in Javascript a Finite State Automaton (FSA), a machine consisting of certain created states such that users can move from one state to other states deterministically and non-deterministically by specified transitions. The machine is applicable in building a washing machine for example.
- Developed built-in demand mode so that any client can create her/his own FSA with any desired states and transitions. The machine operates successfully on any created events
- Created save and restore states function which can save a state and restore it later regardless what the current state and its transition are.

### Connect Four Game (09/2019)

- Generated a Connect Four game in Java that applied Graphical User Interface (GUI) to enhance its UI with colors, shapes, and movements
- Designed different modes to play such as play with friends or computer automation, which is fully functional for real time users