Tu Timmy Hoang

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EDUCATION

M.S in Computer Engineering, Boston University - Boston, MA — EXPECTED DEC 2020
GPA 3.10/4.00
B.S in Computer Engineering, Boston University - Boston, MA — MAY 2018
GPA 3.51/4.00
Dean's List: SPRING 2017

SKILLS

- **Languages:** Python, C++, C, SQL, MATLAB, LabVIEW
- **Frameworks:** PyQt, Flask, Scrapy
- **Other:** Git, Agile/Scrum

PROJECTS

Burger Calorie Predictor App

- Developed an Android application that predicts the calories of a burger/sandwich.
- Utilized Transfer Learning on top of MobileNet and trained a binary classifier for classifying Burger/Not Burger.
- Extracted the final feature vector and used those weights to perform linear regression to predict calories.
- Recorded the calories into a Firebase Database.

Home Automation Controlled Chat Bot

- Built an IoT system which automates a home appliance through a chatbot.
- Utilized the MQTT protocol to be able to establish a publish and subscription-type network between the chatbot and the microcontroller.
- Employed Twitter's REST API to alert user by direct messages when a setting of the appliance changes.

Senti-Tweet

- Developed a web application in the MEAN stack that searched for a Twitter user and performed a sentiment analysis on the Twitter user's tweets.
- Implemented Twitter's REST API to retrieve a public user's information/tweets and applied Indico.io's API on the incoming data for sentiment analysis.

Wireless Car

- Created a small wireless car using a MSP432 microcontroller, Bluetooth modules, and a joystick.
- Utilized a UART serial communication to send data from the joystick to the car with Bluetooth modules.
- Used an Analog to Digital converter to convert the x and y locations of the joystick to correspond with the car's movements.

EXPERIENCE

Boston Micromachines Corp. - Cambridge, Massachusetts — JUNE 2018 – SEPT 2019
Jr. Software Developer

- Developed PyQt applications to automate every stage of production by converting and optimizing legacy MATLAB code to Python. Created a hierarchy of folders to organize the collected data of each product.
- Auto-generated customer PDF reports using Jinja2 templating and wkhtmltopdf.
- Created unit tests with GitLab CI to validate if functions work as intended.
- Used Transfer Learning on top of the ResNet CNN to classify interferometer images of four classes with a 95% accuracy.

Blog Trackr - Boston, Massachusetts — JAN 2018 - MAY 2018
Software Development Intern

- Created a web crawler using Scrapy that reduced the time to scrape websites for text data by 90% over the previous implementation.

Perseus Mirrors - Boston, Massachusetts — JUNE 2017 - AUG 2017
Software Development Intern

- Responsible for creating a web application in Python, Flask, HTML, and CSS that interacts with a smart mirror.
- Developed and designed a secure user registration page, login page, and admin portal page.
- Built a RESTful API to enable users to drag widgets onto the smart mirror from the website.