Huong (QH) Vu

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Education

University of California, San Diego — June 2020
B.S. in Cognitive Science/Machine Learning and Neural Computation
Minor: Computer Science

Relevant Coursework

Computer Science: Advanced Data Structures, Design & Analysis of Algorithms, Software Engineering, Computer & System Programming, Software Tools & Techniques Lab
Machine Learning: Neural Networks & Deep Learning, Neural Signal Processing, Supervised Machine Learning Algorithms, Modeling & Data Analysis

Skills

Programming Languages: Java, JavaScript, C, Python, HTML, CSS, MATLAB, MySQL
Software Development Tools: Git, Jupyter Notebook, Unix, Linux, Vim

Work Experience

Polaris Systems Incorporated, *Engineer Intern* — Jan 2019 - Present

- Implement a field calibration algorithm which is designed by a senior engineer, for a hand-held high accuracy magnetic compass using C & MATLAB, that runs on a 16-bit Digital Signal Processor.
- Implementation includes functions to perform sensor data collection, and calculation of the compensation parameters based on the collected sensor. The resulting calibration parameters are applied to sensor data in real-time to produce accurate magnetic heading outputs.

CureMetrix, *Data Management Intern* — Jan 2019 - Dec 2019

- Developed Python scripts to automate the curation of metadata of radiology mammography images (DICOMs). Scripts unified all file formats for processing. Enabled software team to streamline curation process to ease the efforts of creating training and validation data sets for the data science team.
- Worked closely with radiologists to diagnose and identify ground truths in DICOMs (cancer locations and cancer types) for training sets - roughly 150 DICOMs per week.
- Regularly updated MySQL database containing patient metadata.

Projects

BudgetBat | iOS Mobile Application
Designed and implemented a task-oriented iPhone 6/7/8 mobile responsive app using HTML, CSS, and JavaScript that helps users budget by presenting information in a clear way. Learned how to gather user data and incorporate results into meaningful human-centered design.

News Article Recommender | Python Application
Implemented a KNN supervised learning algorithm to create a recommender system for news articles. Given a news article the system recommends similar articles to view.

Emotion Classification | Python Application
Investigated the effectiveness of 4 pre-trained deep learning models: AlexNet, RNN, SVM, and AlexNet-SVM on classifying emotion. Trained and tested the models on the JAFFE dataset containing 213 facial images.