Huong 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, Bash Scripting
Machine Learning: Neural Networks & Deep Learning, Neural Signal Processing, Supervised Machine Learning Algorithms, Modeling & Data Analysis
Design: Human Centered Cognitive Design, Interaction Design

Work Experience

CureMetrix, *DevOps Intern* — Sep 2020 - Present

- Work on building internal APIs through Python packages. Packages reduce code redundancy and centralize/standardize Python-based utilities in order to assist and distribute to the research team.
- Configure servers to deploy over HTTPS by obtaining SSL/TLS certificates from Let's Encrypt. Use knowledge about TCP/IP networking, SFTP, firewalls, and routing to ensure security of applications.
- SSH into virtual servers to run unit tests on code for quality assurance.
- Write code in AWS CloudFormation to automate spinning up AWS resources and configure stacks for internationalization.
- Assist development team by deploying/running applications in Docker and keeping documentation up-to-date.
- Migrated legacy system to Docker.

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.

Skills

Programming Languages: Python, Bash, Java, JavaScript
UI/UX: HTML, CSS, Heroku, Figma, Responsive Web Design, Human-Centered Design, Interactive Prototyping, Wireframing, A/B User Testing
DevOps Tools: Docker, Docker Compose, AWS CloudFormation, Git, Bitbucket, Visual Studio Code, JIRA, MySQL

Projects

BudgetBat | Mobile Responsive Web Application
Designed and implemented a task-oriented iPhone 6/7/8 mobile 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.

FitNection | Figma Prototype
Designed a high-fidelity prototype for a fitness app using Figma. The app was designed in the context of the COVID-19 pandemic as a way to help young adults foster meaningful virtual connections with one another during quarantine. Gained experience with working in a team where communication was entirely remote.

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.

Housing Market Predictive Modeling | Python Application
Implemented a housing market model to predict the cost of houses on a given block in California using linear regression. Trained the model on a dataset containing categorical features including number of households, total bedrooms, population, and median income.

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. Used Keras in the TensorFlow library to try to implement a CNN that outperformed the accuracy achieved by the AlexNet model.

Char-RNN Model | Python Application
Implemented a char-RNN natural language processing model that generates a unique sequence of text. Trained the model on Shakespeare text using PyTorch.