Xuanyi (Steven) Zhu

1905 N Lincoln Ave, Apt 106, Urbana, IL 61801 (217) 419-6173
xzhu42@illinois.edu www.linkedin.com/in/xuanyi-zhu https://github.com/XuanyiZ

Education

University of Illinois at Urbana-Champaign **08/2014 – 05/2019(Expected)**

Master of Science in Computer Science*, *Bachelor of Science in Computer Science ***GPA:3.83/4.0***

Dean's List: Spring & Fall 2015, Spring & Fall 2016, Spring & Fall 2017, Spring 2018

Successful Contestant, the National Mathematical Contest in Modeling

Relevant coursework: Data Structures & Algorithms Database & Distributed Systems System Programming HCI & Signal Processing Machine Learning & Artificial Intelligence Data Mining

Skills

Languages: Java, Python, C++, C, PHP, JavaScript, SQL, CSS, HTML, Haskell, R, MIPS Assembly

Software/Tools: Tensorflow, Flask, MongoDB, JUnit, Git, MVC, IntelliJ, VM VirtualBox, Android Studio, WebGL

Experience

ArcSoft, Inc. | Hangzhou, China **07/2018 – 08/2018**

Full Stack Software Engineer Intern *(PHP, JavaScript, JQuery, AJAX, HTML, SQL, Bootstrap, CodeIgniter)*

- Built a market inventory management system for the product-manager team to help them track and analyze the current market and reduce labor/time costs.
- Developed interactive web pages with **Bootstrap** and **CodeIgniter** framework, utilizing **AJAX** technology.
- Enhanced system security by designing a hierarchical data access and manipulation mechanism.
- Used **HighCharts** library to achieve customizable data analysis and visualization between **SQL** tables.
- Customized queries for users to offer better information provision.
- Added supports for data editing, searching, filtering, importing and exporting to help users interact between frontend and backend. All code was reviewed, tested, and pushed to production.

Zoom Video Communications | San Jose, CA **05/2017 – 08/2017**

ML/AI Software Engineer Intern *(Python, Tensorflow)*

- Led a team of two, using **Python** and **Tensorflow** to build neural network (MLP, CNN, LSTM) models that classify noise and human sound to achieve noise reduction/cancellation goals (achieved 97% accuracy).
- Analyzed feature importance to identify top factors that influenced results for feature selection.
- Applied normalization and regularization with optimal parameters to overcome overfitting.
- Evaluated model performance of classification via k-fold cross-validation, recall, and precision.
- Gave presentations of analysis results to executives. Wrote an ML/AI concept and resources tutorial book and gave lectures to the engineers to help them quickly grasp the principle machine learning knowledge.

Projects

Eatogether -- a food buddy matching web application (Python) **http://eatogether.pythonanywhere.com/** **Fall 2018**

- Designed an app that leveraged busy student's lunchtime to facilitate social circle expansion.
- Grouped users based on similarity and implemented a messaging system based on **Flask** framework.
- Added data visualization which presents restaurants information based on **Google map API**.
- Interacted with **MongoDB** for data fetching in the backend, utilizing its flexibility and schemaless feature.
- Deployed application on **PythonAnywhere** and database on **mLab** to improve scaling and availability.
- Promoted the app to engineering students. Implemented nudging features which increased retention rates.
- Tested performance by empirical user study with 30 participants to improve quality of the product.

Classical-game-collection desktop application (Java) **Spring 2018**

- Built an interactive classic game collection including snake, chess, and sudoku with **Swing dynamic GUI**.
- Designed the application following **OOD** concepts and **MVC** architectural pattern.
- Improved gameplay by adding an artificial intelligence bot to compete with the player.
- Added user-friendly features: gaming environment change, two players mode, undo, forfeit, and restart.
- Implemented real-time game monitoring features such as scoreboard and next move hint button.
- Performed extensive refactoring and testing with **JUnit** framework. Unit tests achieved 98% coverage.

Tweet Normalizer Application (Python, Electron, JavaScript) **Spring 2018**

- Developed a supervised-machine-learning system to perform lexical normalization for English Twitter text.
- Generated candidates based on past knowledge and a novel string similarity measurement.
- Selected large real-world datasets to train the model with random forest classifiers.
- Implemented **OAuth** login feature. Used **Electron** and **Vue.js** to implement a GUI which interacts real-time with the Twitter API, parsing and displaying the data in the application interface.
- Enhanced accuracy by supplying user-aided revision features that enable normalization engine evolution.