Xuanyi (Steven) Zhu

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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 • Data Mining • System Programming • HCI & Signal Processing • Machine Learning & Artificial Intelligence

Skills

Languages: Java, Python, C++, C, PHP, JavaScript, SQL, CSS, HTML, Haskell, R, MATLAB, MIPS, Verilog
Software/Tools: Tensorflow, Flask, MongoDB, JUnit, Git, MVC, IntelliJ, VM VirtualBox, Android Studio, WebGL

Experience

Zoom Video Communications| San Jose, CA **05/2017–08/2017**
ML/AI Software Engineer Intern *(Python, Tensorflow)*
• Used **Python** and **Tensorflow** to build neural network(MLP, CNN, LSTM) models that classify noise and human sound to help the audio team achieve noise reduction/cancellation goal with 97% accuracy.
• Applied normalization and regularization with optimal parameters to overcome overfitting issue.
• Optimized and evaluated performance via feature selection, k-fold cross-validation, recall, and precision.
• Presented analysis results to executives. Wrote an ML/AI concept and resources tutorial book.
• Gave lectures to the engineers to help them quickly grasp ML knowledge.

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 current market data 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.
• Added supports for data editing, searching, querying, filtering, importing and exporting to offer users efficient information provision and interaction. All code was reviewed, tested, and pushed to production.

Projects

Eatogether -- a food buddy matching web application *(Python)* **http://eatogether.pythonanywhere.com/** **Fall 2018**
• Designed an app that leveraged busy students' 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 and migrated database on **cloud** 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.

Classic-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 a two-player mode and an artificial-intelligence-bot-competing mode.
• Implemented real-time game monitoring features such as next move hint, undo, forfeit, and restart.
• Performed extensive refactoring and testing with **JUnit** framework. Unit tests achieved 98% coverage.

Tweet Normalizer Application *(Python, Electron, JavaScript, Random forest classifier)* **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.
• 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.