Xuanyi (Steven) Zhu

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Work Experience

Amazon Inc. **Seattle, WA** **07/2019–Present**
Software Engineer *(Java, AWS, Coral, DataPath, Gurupa, OOD)*
- Developed a system that collates books and presents the collection pages to the Amazon customers.
- Designed, developed, and launched a scalable information ingestion system that curates data and publishes book series to Amazon catalog data warehouse.
- Developed a Next Book In Series service to encourage additional purchase, which enhances customers' book shopping and reading experience and increases customer glance views and company profit.
- Maintained and enhanced the internal metadata querying system. Upgraded it to adapt to the lastest Amazon infrastructure and **AWS** services, which saves the Kindle division millions of dollars monthly.

Zoom Video Communications **San Jose, CA** **05/2017–08/2017**
ML/AI Software Engineer Intern *(Python, Tensorflow)*
- Built neural network(MLP, CNN, LSTM) models that classify noise and human sound to help the audio team achieve noise reduction/cancellation goals with a 97% accuracy.
- Applied normalization and regularization with optimal parameters to overcome the overfitting issue.
- Optimized and evaluated performance via feature selection, k-fold cross-validation, precision, and recall.
- Presented analysis results to executives. Wrote an ML/AI concept and resources tutorial book.
- Gave lectures to the engineers to refresh their 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.
- Implemented data editing, searching, querying, filtering, importing, and exporting functionalities to offer users efficient information provision and interaction.

Skills

Languages: Java, Python, C++, C, PHP, JavaScript, SQL, CSS, HTML, Haskell, R, MATLAB, Perl, Verilog
Software/Tools: AWS, MVC, MongoDB, MySQL, Tensorflow(Machine Learning), Flask, RESTful, WebGL

Education

University of Illinois at Urbana-Champaign **08/2014 – 05/2019**
Bachelor of Science in Computer Science ***GPA:3.81/4.0***
Master of Science in Computer Science ***GPA:3.62/4.0***
Relevant coursework: • Data Structures & Algorithms • Database & Distributed Systems • Data Mining • Software Programming • HCI & Signal Processing • Machine Learning & Artificial Intelligence

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 restaurant 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.
- Tested performance by empirical user studies. Implemented nudging features to increase retention rates.

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 in 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.