Bingqing (Angelina) Ma

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EDUCATION

Cornell University, Computer and Information Science, Ithaca, NY
Master of Engineering in Computer Science, **GPA:3.80** **May 2018**

Cornell University, School of Chemical and Biomolecular Engineering, Ithaca, NY
Master of Engineering in Chemical Engineering, **GPA: 3.52** **Jan 2017**

Xiamen University, Department of Chemistry and Chemical Engineering, Xiamen, China
Bachelor of Science in Chemistry**, National scholarship, No. 1, GPA: 3.75** **June 2011**

Selected Coursework: Operating Systems • Intro to Database Systems • Cloud Computing • Project Management • Machine Learning for Intelligent Systems • Natural Language Processing • Foundations of Artificial Intelligence Intro to Analysis of Algorithms • Intermediate Design and Programming for Web

SPECIALIZED SKILLS

Object Oriented Programming (Python, Java); Data Analysis and Machine learning (Python, SQL); Cloud Computing
Programming Languages: Python, Java, C, MySQL, Ruby on Rails, Html, CSS, C++, JavaScript, PHP, OCaml;
Operating Systems: Mac OS, Windows, Ubuntu;
Tools: GitHub, Scikit-learn, Logisim; **Frameworks:** Redis, ActiveAdmin;

WORK EXPERIENCE

Engineer at IoT team, *Lime,* Redwood City, CA **Sep 2018 – now**

- Built a fleet management platform with team members to monitor and manage vehicles, which includes the utilities to perform safe remote firmware upgrade and OTA configs, etc. by using ActiveAdimin and Redis in Ruby on Rails

Python Teaching Assistant, *Intro to Computing Using Python,* Cornell University, Ithaca, NY **Fall 2017**

- Position nominated by faculty based on excellent academic performance, providing teaching assistance to 580 undergraduates by leading lab sessions, holding office hours, grading assignments and exams, and anticipating in exam design with faculty

RELEVANT ACADEMIC PROJECTS

Gossip-style Membership Protocol, *Independent project* **Summer 2018**

- Implemented a failure detector by gossip-style heartbeats in C++ for an emulated network
- Supported new peer to join the group by contacting a well-known peer (introducer) and satisfied completeness and accuracy (with no package losses and delays)

TCP multi-client single-server system, *Department of Computer Science*, Cornell University **Spring 2018**

- Implemented server-client communication paradigm in Python using TCP sockets
- Server supports concurrent client requests by using non-blocking sockets supported by Linux epoll event notification facility

Facial recognition (celebrities face classifier), *Department of Computer Science,* Cornell University **Spring 2018**

- Implemented a linear SVM classifier with scikit-learn on 2048-D feature vectors generated from the convolutional layers of a pre-trained ResNet and achieved accuracy of 60.6% on cross validation set
- Optimized by tuning regularization in SVM and adding rotation on feature vectors to get accuracy of 65.6%
- Used FaceNet with TensorFlow online resources to train a deep learning model and to get accuracy of 95.4%

Email Spam Filter, *Department of Computer Science*, Cornell University **Spring 2018**

- Implemented ridge loss, hinge loss and logistic loss to train an email spam filter using the Adagrad algorithm
- Optimized the method by tuning hyper-parameter for regularization, using early stopping in gradient descent and choosing the minimum loss function for each data point
- Achieved accuracy of 99.6% on cross validation dataset

Classic flash game *Breakout*, *Department of Computer Science,* Cornell University **Fall 2015**

- Designed the game using Model-View-Controller pattern with the support of GUI packages in Python