Xilin Sun

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EDUCATION

University of California, Berkeley

Master of Engineering, Industrial Engineering and Operations Research   May 2016 (Expected)

Introduction to Machine Learning, Applications in Data Analysis, Optimization Analytics, Applied Stochastic Processes, Engineering Leadership

The Hong Kong Polytechnic University

Bachelor of Engineering, Mechanical Engineering - Product Analysis and Engineering Design   May 2015

Engineering Project Management, Product Modeling Simulation and Analysis, Quantitative and Computational Methods, Numerical Methods for Product Design

TECHNICAL SKILLS

Python, Spark, R, Java, MySQL (MariaDB), LaTeX, Bash, Linux System Administration, Amazon Web Services (EC2, S3 and EMR), Tableau

PROFESSIONAL AND ACADEMIC EXPERIENCE

Natural Language Understanding on Company Annual Reports   Dec 2015 – May 2016 (Expected)

- Applied web crawling and word stemming for data retrieval and cleaning.
- Predicted company performance by extracting sentiment polarity using TextBlob and applying Logistic Regression, SVM, Gradient Boosting and Random Forest Regression.

Machine Learning for Analysis of Patent Blocking

Supervisors: Prof. Lee Fleming (UC Berkeley), Jay Yonamine (Google)

Capstone Project Member   Sep 2015 – May 2016 (Expected)

- Cleaned and carried out exploratory analysis on patent application data from databases of UC Berkeley and United States Patent and Trademark Office, using MySQL, R and Python.
- Extracted features from texts of claims in each patent application, patent similarities and industry timelines.
- Using Machine Learning algorithms and tools, built and improved a model to predict whether and why a patent will be blocked. This model can be applied to improve patent application processes.

Improve Debian port on MIPSEL

Google Summer of Code 2014

Student Participant   May – Aug 2014

- Worked remotely with team members in Austria, Hong Kong, Beijing and Australia.
- Tested software packages for Debian GNU/Linux project on MIPSEL hardware architecture. Mainly used Bash and C++. Reported 23 bugs and submitted 20 patches for the packages which fail to build due to changes from the compiler. Made the system more functional and stable. (http://goo.gl/mLKasU)

LEADERSHIP AND ACTIVITIES

Arduino and Robotics Workshop

The Hong Kong Polytechnic University   **Hong Kong**

Instructor   Nov 2014

- Introduced Arduino and common sensors and actuators to students and instructed them to design and realize embedded systems through a series of workshops. These workshops helped students get started on robotics and attend robotics competitions.

The Hong Kong Polytechnic University Students' Union   **Hong Kong**

Head of IT Department   May 2012 – May 2013

- Managed member databases, developed and maintained online forum and activity sign-up system. Promoted the organization on online platforms.