Marco Guang XIONG

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Summary

Programming Languages: Python (proficient), Java(proficient), SQL, NoSQL, JavaScript, Shell, C/C++

Technologies: Django, Flask, RESTful, Hadoop/MapReduce, MongoDB, jQuery, Web Crawler, Android

Areas of Interest: Full Stack Web/Mobile Application, Backend/Server-Side, Big Data Mining, Game Design

Education

New York University | Brooklyn, NY — May 2015
Master of Science in Computer Science, Polytechnic School of Engineering

Sun Yat-sen University | Guangzhou, China — June 2013
Bachelor of Science in Physics, School of Physics and Engineering

Relevant Experience

Intern - Software Engineer & Assistant Product Manager at YaroGroup, LLC | Brooklyn, NY

(Java, Python, Flask, RESTful) Backend System Development for NYC Parking App Feb - May 2015

- Analyzed product requirements, helped make strategic decisions and organized development activities by deeply communicating with product manager and development team.
- Web-crawled over 1GB parking data with Python, parsed raw data format and integrated different data source to generate 500,000+ parking signs entries in standard format with Java and JDBC.
- Built a REST API GET to retrieve nearby parking signs provided user location or searched address.
- Built a demo website with Python Flask displaying data on Google Maps: *http://nyc-parking.herokuapp.com*

Independent Full Stack Web/Mobile Application Developer | Fremont, CA

(Python, Django, ORM, jQuery) CS Course Video Tutorials Membership Website May - Jul 2015

- Designed and implemented all functionality modules in Django's Model-Template-View framework and ORM including: user account, subscription billing, notifications, video contents, user comments and page view analytics.
- *Website: www.projectstepbystep.com Source Code: https://github.com/GuangXIONG/psps*

(Java, Android, UI/UX, Parse.com) Micro-Snapchat: Self-Destructing Message App Jul - Aug 2015

- Built an app which allow users to send photo or video messages to others that will be deleted once viewed with Parse.
- *Google Play link: http://play.google.com/store/apps/details?id=com.artgeektech.microsnapchat*

(Python, Flask, RESTful, MongoDB) Micro-Twitter: Social Network Microblogging Jul - Aug 2015

- Built a Twitter-like website with all the major functionality modules: user account, follow/unfollow, blogging, news feed.
- Built a Twitter-like REST APIs GET/POST to read and write blogging data with User Authentication with MongoDB.
- *Website: http://micro-twitter.herokuapp.com Source Code: https://github.com/GuangXIONG/micro-twitter*

NYU Alternative Control Game Hackthon (*Awarded Best Design Concept*) | Brooklyn, NY

(Python, UI/UX, Leap Motion, Game Theory) Hackthon Indie Game: Ninja MVP ! Oct - Nov 2014

- Founded the game idea, designed and implemented control logic and user interface of a real-time multi-player shooting game on theme of Japanese manga "*Ninja Naruto*".
- Designed and implemented game scoring rules inspired from Game Theory where players make best shooting decisions among solo, cooperative or competitive strategies, using Leap Motion to track and control gestures.
- *Game Demo Video and Source code link: https://github.com/GuangXIONG/Ninja-MVP*

Academic Project Series

(Java, Python, Multi-thread, NoSQL) System Design Course Project Series Fall 2014

- *Python-NoSQL-Database*: Built a Key/Value store database, command parser and handlers with Python Dictionary.
- *Python-Multithread-Crawler*: Built a multi-thread crawler with semaphore scheduler and SQLite Database.
- *Java-File-System*: Built a simplified in-memory file system with Tree and HashMap data structures.

(Python, Hadoop, AWS, Big Data) Massive Data Analysis on NYC Taxi Data Fall 2014

- Web-crawled to collect over 30GB NYC taxi data in 2013, implemented Map-Reduce algorithms to analyze growth pattern of taxi revenue over time.
- Compared and integrated taxi data with census and weather data to find correlations and verify hypotheses.
- *Data Analysis Visualization Demo and Source Code link: https://github.com/GuangXIONG/taxi-analysis*