John Smith

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SUMMARY

Seeking a full-time software engineer position

Solid software engineer with strong programming, analytical and mathematical skills. Has a wide range of **software development internship** and project experience, including **Android, iOS, recommendation system, full-stack web application development** with **Go, React, Spring, Hibernate**, 5+ years of programming experience for large-scale system development.

EDUCATION

University of Michigan   **GPA: 3.57/4.0**   August 2011-December 2016
Master in Electrical Engineering
Harbin Institute of Technology, Harbin, China   June 2011
BS in Optical Communication Engineering, *Dean's List, National Scholarship*

SKILLS

Programming Languages: object-oriented design using **Java**, web development using **HTML**, **CSS**, **JavaScript**; statistical analysis using **MATLAB**, **Python**; database operation using **SQL**
Databases: relational databases (**Oracle**, **MySQL**) and NoSQL databases (**MongoDB**)
Computer Science: data structures and algorithms; object oriented programming; distributed systems design and development (MapReduce)

WORK EXPERIENCE

Software Engineer Internship, *Infinera Corporation*   June 2015-August 2015
- Worked in a team of ten responsible for design and verification of network products
- Conducted VB.NET programming to implement automated testing on product performance
- Implemented script codes to control testing instruments, and developed algorithms to improve test procedures
- Evaluated test data of over 80 test cases, debugged 10 test failures and performed regression testing

PROJECTS

LinkedIn+: Java Web Service Development – Job Search and Recommendation
GitHub: https://github.com/xxxxxxxxxx/Dashi.git
- Developed a dynamic web page and Android app for users to search jobs and update preference
- Improved personalized business recommendation based on search history and favorite records

Back End:
- Created Java servlets with **RESTful** APIs to handle HTTP requests and responses
- Built relational and **NoSQL** databases (MySQL, MongoDB) to capture data from Linkedin API
- Designed algorithms (e.g., **content-based** recommendation) to implement business recommendation
- Deployed server side to **Amazon EC2** to handle 150 queries per second tested by **Apache JMeter**.

Front End:
- Designed an interactive web page utilizing **AJAX** technology (**HTML, CSS and JavaScript**)
- Developed an **Android** mobile app for users to search nearby businesses based on locations

Geo-Index Based Social Network on iOS / Go
- Developed an iOS app for users to post events and updates (description, geo-location, etc.)
- Built a scalable web service in **Go** to handle posts and deployed to **Google Cloud (GAE flex)** for better scaling

- Utilized ElasticSearch (GCE) to provide geo-location based search functions such that users can search nearby posts within a distance (e.g. 200km)
- Used Google Dataflow to implement a daily dump of posts to BigQuery table for offline analysis
- Aggregated the data at the post level and user level to improve the keyword based spam detection **(BigQuery)**

AIR: Amazon Item Recommendation
- AIR is to provide better item recommendation (Books, Music Instruments, etc.) using Amazon's dataset
- Extracted and purified features from Amazon dataset and prepared dataset for testing
- Designed a **MapReduce** program in **MongoDB** to calculate similarity scores between users
- Designed a **Collaborative Filtering** algorithm based on similarity scores to improve recommendation precision
- Tested the performance among 583k items and 10 categories

User Behavior Analysis
- Used ELK to target mobile users on the basis of demographics, location, behavior, device and service provider, etc.
- Built an **ElasticSearch** project to store user session data and process raw information before further analysis.
- Used **Timelion** timeline to identify peak seasons and periods for resource usages (weekends, holidays etc.)
- Utilized GeoIp in **Kibana** to analyze the geographic distribution of new customers and returning users.
- Tested the geolocations of 10k fake users with JMeter and delivered to 70 alpha test users to improve the quality of the product and ensure beta readiness.

Daren: a LBS based Android App for Tourists and Local Residents
- Developed an **Android** App for users to post events and search nearby events based on keyword tags
- Integrated **Google Map** API to display the nearby hot events and navigate to the event
- Used **Google Firebase** to store and manage UGC including comments, images, descriptions, title, geolocations
- Used in-app advertising (**Google AdMob**) to show Google advertisers and keep users engaged.
- Utilized **Yahoo Caffe DNN API** to detect and filter racy and porn images to improve user satisfaction