

Vicky (Yaqi) Yang

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Summary

- To obtain a Software Engineer position, which utilizes my analytical and technical skills
- I have strong background in statistics and math, with solid programming/design skills, and strong problem solving ability
- Passionate about solving real world problems with software programming and having strong interest in new technology
- **Visa Status: U.S Citizen**

Education

- M.S. in Industrial and Operations Engineering with concentration on Operation Research **University of Michigan, Ann Arbor**
- B.A. in Statistics and B.A. in Applied Math, Minor in Operations Research **University of California, Berkeley**
- Selected Courses: Algorithms, Data Structure, OOP/OOD, Database, Optimization Method, Financial Engineering, etc.

Technical Skills

- Proficient in Python, Java/JDBC/JUnit, MongoDB/JSON, Cassandra/CQL, MySQL, ElasticSearch, Charles Proxy
- Familiar with R, Matlab, PHP, Javascript/JQuery, HTML, CSS/Bootstrap
- Familiar IDE/tools: PyCharm, IntelliJ, Eclipse, Sublime, Notepad++, Perforce, Git, Jira, VMWare/VirtualBox

Work Experience

Software Engineer, Reflektion, San Mateo, CA

Present

- Personalize search infrastructure building and implementation for e-commerce platform using Python, Mongo, etc
- Improved personalized search quality by using some techniques such as query understanding
- Implemented dynamic facets and filters based on individual searching results using ElasticSearch

Software Engineer, Tata Consultancy Services, Santa Clara, CA

2015

- Market Decision Making Project
 - Did text mining, text matching in R to merge updated government dataset and client company datasets
 - Improved the matching algorithms for more accuracy merging results
 - Provided the sales a list of information about matching customers, as their potential target customers
- Review Comments Analysis Project
 - Analyzed client company Apps feedbacks and reviews, to figure out the way to improve the Apps
 - Used skills such as text mining, word clouds, string distance algorithms, frequency statistics in R

Software Engineer, Cepheid, Sunnyvale, CA

2014

- Java developed and maintained software for automated molecular diagnostics system (GeneXpert System v4.7)
- Developed the front-end (GUI) desktop based application by using Java swing/JFC
- Ran virtual machine on VMware to test software performance, consolidating large data files, used SQL test result datasets

Selected Projects

Real Time Part-time Jobs Searching Web Application,

- Used PHP, MySQL, HTML, CSS, JavaScript create a web application, helping users to seek for instant help

Mancala Game GUI based application,

- Created a Mancala game using Java, GUI based application
- Implemented some features such as allowing the players to choose the game initial settings, redo steps, etc.
- The MVC pattern and Strategy pattern were applied in the design of the game

Airline Reservation System,

- Based on the user's requirements, composed a set of use cases
- Designed several classes using UML tool to draw class diagram and sequence diagram
- Implemented and tested all relevant classes using Java/JUnit

Optimal Dynamic Programming Project in Smart Grids,

- Developed a program for optimizing dynamic energy purchasing problem to improve computational efficiency
- Programmed with Matlab, tested, and composed analysis according to algorithms and computational result

Modeling American Option Prices by Adjusted Black-Scholes Model,

- Developed an adjusted Black-Scholes pricing model for an American Call Option with Matlab
- Increased the accuracy and extended the range of BS pricing model can be applied when pricing real world options