Minkang(Luke) Yang

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EDUCATION

New York University Projected: 05/2020
M.S. Computer Science, Courant Institute of Mathematical Sciences GPA : 3.8/4.0

University of Illinois at Urbana-Champaign 08/2013 - 05/2018
B.S. Computer Engineering, College of Engineering (Bob Bohl Scholarship) GPA : 3.5/4.0

TECHNICAL SKILLS

- Programming languages: Java, C/C++, Python, JavaScript, Go, HTML5, CSS3, SQL, Bash
- Technologies: Linux, ReactJS, NodeJS, Express, PostgreSQL, Flask, MongoDB, Hive, Docker, Terraform, Packer, DevOps

WORK EXPERIENCE

Software Engineer Intern @ TigerGraph, Redwood City, California, USA 06/2019 - 08/2019
- Built a multiple-thread high-availability monitor system for GraphStudio instances running on Amazon EC2 with Netdata, Prometheus, and Grafana using **Go**, **Bash**, and **Terraform**
- Implemented new features including root-device-size, and sub-domain for frontend (ReactJs) and backend (ExpressJS)
- Deployed the cloud portal application using **Docker** Image based on CentOS
- Migrated the database from PostgreSQL to Amazon RDS

Android Developer Intern @ Onkore Inc., Redwood City, California, USA 06/2017 - 07/2017
- Built Mobile apps which engage thousands of viewers in Fantasy Gaming based on TV show The Bachelorette (**Java**)
- Implemented In-app Billing feature including receipt validation with Google In-App-Billing Library V3 and utilized Recycler view to layout all purchase options from our server
- Configured Google Dev Console with in-app purchase products and set up A/B testing on Google Dev Console
- Converted AsyncTasks to reactive pattern using RxJava to avoid memory leaks, and to improve error handling and readability

Lab Assistant @ Intelligent Optics Laboratory, ECE, UIUC 08/2016 - 05/2017
- Worked on eliminating the 3D disorder in Virtual-reality 3D display by using four-plane display, which enables user to look at planes with different depths at the same time in a research group led by Prof. Gao
- Contributed to manuscript preparation for paper: "Optical mapping near-eye three-dimensional display with correct focus cues", Optics Letters, 42, pp. 2475-2478 (2017)

Associate Product Manager Intern @ Wontai Information Co., Hangzhou, China 05/2016 - 07/2016
- Designed online social networking functions for a community App for 10000+ users
- Defined success metrics and analyzed performance, balancing quantitative and qualitative insights

PROJECTS

React JS based NBA Player Strength Visualization 02/2019 - 03/2019
https://nba-web-d86ec.firebaseapp.com
- Created a dashboard using **ReactJs**, D3, and Ant Design backed by API from stats.nba.com to visualize individual player's shot data, including a shot chart and user profile view
- Created 4 extra filters and 2 shot themes (hexbin and scatter) to provide more customized visualization on the shot chart
- Developed a autocomplete player search bar providing a list of players (image and name) in the suggestion list

H-1B Analysis: Big Data Analysis with Hive and Hadoop 10/2018 - 11/2018
https://github.com/myang39/h1b-analysis
- Built a big data analysis workflow containing 5 Map Reduce (**Java**) jobs to process 1.01 million records of H-1B application
- Cleaned and profiled the data with Map Reduce including selecting useful fields, filtering out garbage contents, and collecting statics and informative summaries about the data
- Standardized data schema, normalized data fields and transformed data into desired types and structures
- Discovered industry groups by extracting high frequency keywords from the whole data set using Map Reduce word count and categorized each record into a specific industry using keywords matching
- Analyzed the distribution of processing duration, employment duration, work location, wage rate, occupation and their relation with visa processing status using Hive and included the results in paper (https://github.com/myang39/h1b-analysis/blob/master/paper.pdf)

ShareRides: A Web Application Project 09/2017 - 12/2017
https://longsharerides.herokuapp.com
- Led a team of five devising a full-featured web app for college students to share vehicle recourses in long distance traveling

Backend:
- Created **RESTful** APIs to handle HTTP requests and responses using **Express JS** (NodeJS)
- Built NoSQL databases (**MongoDB**) to capture real time data from users
- Deployed server side to Heroku

Frontend:
- Designed an interactive and responsive web app supporting functions like registration and login, ride posting and searching, requesting and accepting using React JS (HTML, CSS, and JavaScript)