Minghao (Kelvin) Liu

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Technical Skills

Languages: C/C++/C#, Java, Python, Javascript, PHP

Databases: MySQL, Cassandra

Tools/Software: Bash, Vim, Git, Docker, Vagrant, Gradle, Visual Studio, Eclipse, Intellij

Platforms/Frameworks: Spring, Laravel, Django, Android

Work Experience

Activision
Software Developer Intern

09/2015 - 04/2016
Vancouver, BC

- Implement server-side APIs for game studios
- Collaborate with developer teammates within an agile model with 2-week sprints, daily SCRUM meeting and JIRA tickets
- Rewrite legacy code for better performance and scalability
- Upgrade system test framework for a more automated testing environment
- Analyze error logs after each deployment and write deployment reports
- Communicate with Tencent and investigate issues they encounter
- Do code reviews for each pull request and discuss feature request with other Dev teams
- Discuss technical issues and brainstorm solutions during weekly team meeting

Education

The University of British Columbia
Computer Science and Math -- Double Major

09/2013 – 05/2017
(Anticipated)
Vancouver, Canada

Projects

Gomoku Plus
A chess game similar to Tic-Tac-Toe

April 2015 – December 2015
Personal Project

- Implemented evaluation-based AI which is different from brute-force AI in that it prunes out more branches for deeper search
- Integrated AI with human player strategies for increased flexibility
- Designed built-in game stepper which helps user analyze each move they played
- Built centralized game server which collects game details for a certain player and makes suggestions for improvements
- Wrote automated server-side script to perform cleanup and secret key generation

Course Base
A course material source for UBC students

September 2015 – Now
Personal Project

- Designed credit system to encourage users upload high-quality materials
- Implemented friend service, and users can get push notification for their followers' updates

Noti-Timer

July 2015 – August 2015
Personal Project

A task scheduler for Android Phones

- Implemented background service with battery optimization
- Implemented customization options to give users a refreshing look
- Wrote HTTP server as well as Cassandra backend to backup users' preferences

Mega-Byke Route Planner

June 2015 – July 2015
Course: CPSC 310
Academic Project

A RESTful webapp for bikeway route planning

- Integrated Google Maps API for calculating optimal bikeways
- Implemented user cache which allows users to save their favorite locations and bikeways
- Integrated social networking, allowing user to share bikeways Facebook as well as follow other users

Buy Stocks!

March 2015 – April 2015
Course: CPSC 304
Academic Project

A virtual online stock transaction platform

- Modeled normalized (3NF) entities and relationships, and created schema representing the stock data
- Implemented data getter and parser which requests latest stock data using Yahoo Finance API every 3 minutes and parses data for display
- Built visualization for user profile in web UI, mainly in charts and diagrams
- Implemented website animations and transitions using WOW.js animation library

Dynamic Hangman

October 2014 – November 2014
Course: CPSC 221
Academic Project

A word-guessing game which generates answer dynamically

- Implemented multiple difficulty levels, and the highest level uses mini-max search to generate answer key
- Wrote dictionary update script to pull the latest dictionary from Google

NextBus

March 2014 – April 2014
Course: CPSC 210
Academic Project

An Android application for tracking Translink bus schedules

- Retrieved bus schedule JSON response from Translink API and implemented parser for parsing data by using external libraries
- Rendered bus GPS data as map overlays, and used Android's GPS APIs to plot user location onto the map

Other Activities

- Undergrad Cumulative GPA: 85.2%; GPA over all Math courses: 92.2%; GPA over all Computer Science courses: 86.6%
- Won Second Prize in 2011 China National Chemistry Olympics (top 2%)
- Won 4th place in 2012 Qingdao Regional Chinese Chess Competition
- Mensa Member since May 2015