

Carl Liu

Senior Computer Science Major

Seeking an entry level full-time position related to software engineering

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EDUCATION

McGill University

Expected Graduation in June 2018

Candidate for Bachelor, Major in Computer Science, Minor in Music Theory

Other Training:

- Deep Learning by Stanford University on Coursera

COMPUTER PROFICIENCY

Languages: Java (expert), JavaScript (expert), SQL (expert), C (proficient), C++(proficient), Python(prior experience)

Courses: Data Structures, OS, Software Systems, Artificial Intelligence, Statistics, Computer Architecture, Algorithms

Tools: AWS, Tableau, SAP HANA, Git, Linux, Docker, Matlab, MongoDB, React, Spring, Unity

EXPERIENCES

Tableau Software, Software Engineer Intern

Sep. 2017 – Dec. 2017

- Initiated and incubated VizTractor project that makes content in the visualizations searchable by crawling and indexing keywords to improve search engine of Tableau Public, which has millions of views daily.
- Implemented a visualization trend prediction model through regression analysis and database re-engineering; drastically lowered time and cost for Tableau to select 'viz of the week' and risk for system breakdowns caused by unawareness of upward trending visualizations.
- Improved load-balancing of Tableau Server's deployment on AWS by creating a serverless load testing tool using headless-Chrome and AWS Lambda. The tool can ramp up to 50,000 concurrent automated users, which is more effective than existing third-party load testing tools.

SAP SE, Software Engineer Intern

Jan. 2017 – Jul. 2017

- Developed micro-services applications using SAP HANA Predictive Analysis Library to provide prediction and forecasting features on SAP ERP systems.
- Performance testing, bug fixing and maintenance over SAP multichannel utility applications forward deployed at RWE Group, Hydro One, National Grid, etc.

McGill University, Research Assistant

Jan. 2017 – Jul. 2017

- Focused on OS related topics and actively participated in academic researches and seminars.
- Helped students enrolled in COMP396 (Undergraduate Research Project) and COMP310 (Operating Systems) to understand course materials and objectives.

Baidu, Software Engineer Intern

May. 2016 – Aug. 2016

- Concentrated on research to increase the speed of development process at Baidu; developed BirdV3 and Matriks-seed, node-based middlewares React/Redux/Spring architecture.
- Solved major issues related to Baidu visualization library Echarts 2.0 not being able to re-render with React.

Metanautix (acquired by Microsoft), Software Testing Intern

Jun. 2015 – Aug. 2015

- Conducted acceptance test on the major product Metanautix Quest at scale with respect to functionalities and performance.

Projects*

Redefime (task.redefime.com)

- Online doc tool for team management I developed with a senior engineer from Atlassian; implemented in MySQL, PHP, and Backbone.js
- Has been adopted by hundreds of developers at Baidu.

JAMScript (github.com/anrl/JAMScript)

- McGill University Open-Sourced language for IoT devices.
- Developed with Professor Maheswaran and his students to achieve real-time communication between distant IoT devices (connected through cloud platforms).

CarlGo (carlrocks.com/2016/06/03/CarlGo_AI_Game_Agent)

- AI board game player implemented using artificial intelligence and neural network techniques combining Hidden Markov's Chain, Monte-Carlos, and Q-learning

Activities

- Lead Guitarist and founder of band Modulo, Montréal Rock Band Battle Finalist
- Composer and founder of University Bible Fellowship Chorus

* Code can be viewed at github.com/gazcn007 and carlrocks.com