Tom Liu





TECHNICAL SKILLS

Programming C/C++, Java, Javascript, Python, Node.js, Go, Bash, Swift 4/5, HTML5/CSS3, Verilog

Cloud computing services GCP

Tools Git, Docker, Kubernetes, npm, valgrind, Bootstrap, Visual Studio, Xcode, Android Studio

DBMS IBM DB2, MongoDB, Cloud SQL

System Linux/Windows

EDUCATION

Bachelor of Software Engineering (Level 3)

McMaster Univeristy

Main Courses: Data Structure & Algorithms, Software Development, Database, Concurrent, Software Requirement and Security Considerations

GPA: 3.7 (2016 - Present)

Awards: Dean's Honor List, McMaster Honor Awards

PROJECTS

Deploy Find-seller Web Application on Google Cloud Platforms

Personal Project / June 2019

- An online purchase website that allows user to post and purchase products, powered by Go server deployed on Google Kubernetes Engine
- · Connect external networks though using HTTP/HTTPS GCP load balancer and allowing splitting traffic for avoiding caching issues
- Create the Docker image and Kubernetes Engine cluster, and deploy web application on Kubernetes Engine

Design of FoodMatter Web Application – node.js, JS, HTML5, CSS3

Personal Project / January 2019

- A website application that allows user to search for more than 100k various food products and also provide relevant products.
- Construct undirected weighted graph in order to build the relationship between the relevant products.
- Make HTTP requests and parse JSON API responses using the Node standard library, Express, and body-parser.
- Link: https://damp-garden-51296.herokuapp.com/

Study of Genetic Algorithm - C

Course Project / January 2019

- The GA project is about the recreation of a given PPM image starting from a randomly generated PPM image.
- Apply linear program and simplex method to approach optimal solution in order to reduce complexity and improve its performance
- Valgrind debug memory leak issues etc.
- Link: https://www.youtube.com/watch?v=ijgb4eleb3l

EXPERIENCE

Columbia International College Summer Camp

Lead Counsellor / May - August 2018

- Planned out camp overnight trips and activities such as "5-Day Canada East tour" with more than 200 participants.
- Flexibly deal with unexpected incidents such as injury campers and students fighting or assault

EXTRACURRICULARS

RBC AmpHack

Software Developer / Sep 2019 - Present

- Worked in a team of 4 to brainstorm, develop, and pitch a prototype within 34 hours
- Designed a business analysis web application powered by node.js service, deployed on Google App Engine

International Student Mentorship

Mentor - McMaster University / Sep 2018 - Present

- Ensure a smooth and welcoming transition to campus and to Canada for first year international student.
- Planned on campus and out campus activities with more than 100 participants.

REFERENCES AVAILABLE UPON REQUEST