



# SICONG JIA

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## SKILLS

### Programming

- C/C++, Java, Python, Matlab, Swift, Django, R

### Web Technologies

- HTML, CSS, Nginx, Bootstrap

### Systems Management

- Windows, Linux, Mac OS, Vagrant, Chef, GCloud

### Tools

- Github, SVN, Visual Studio, Photoshop

### Compilers

- Bison, Flex, LLVM

### Databases

- SQL server, My SQL

## WORK EXPERIENCE

### KERNEL DEVELOPER (Co-op)

Jan - Aug 2018

Gumstix Research Canada, Ltd.

- Maintained custom embedded Linux distributions, Linux kernel, bootloaders for various platforms (Raspberry Pi, TI Omap) with Yocto Project
- Written automated test scripts for peripherals using Python
- Contributed to boards bring up, added peripheral support such as cameras, USB, WiFi, Bluetooth and audio codec

### LEARNING AND DEVELOPMENT INTERN

Jun - Sep 2017

PricewaterhouseCoopers (PwC)

- Analyzed customer satisfaction ratings and implemented improvements in a scheduled release cycle
- Wrote JavaScript to manipulate browser cookies, automated the process to save management time
- Created and designed multimedia to support course material in Storyline
- Work with the production team to determine the appropriate approach to accomplish course objectives

## PERSONAL PROJECT

### IOS APPLICATION

Jan 2018 - Present

- Create REST APIs that connect SQL database using Flask Python
- Write products order system using Swift and REST API
- Write payment features with Alipay and Wechat Pay SDK
- Build and maintain a Linux back-end server on Google Cloud
- Understand App Store publish procedure

## TECHNICAL PROJECTS

### POKEMON TRADING WEBSITE

Apr- Aug 2019

<https://pokemon470.herokuapp.com/pokemon/>

- Set up development environment using Vagrant and Chef
- Wrote user login/register system with Django authentication
- Implement real time notification for website with Django notification
- Deployed server using Gunicorn and Nginx on AWS Ubuntu

### DATA MINING

Jan - Apr 2019

Specific Topic - Data Mining, SFU

- Gained practical experience with classification methods using R
- Analyzed different feature engineering methods to avoid data overfitting
- Classified fifa players with several models eg. Random forest, decision tree to predict compatibility between players

### SCIENTIFIC COMPUTING

Sep - Dec 2016

Numerical Analysis I, SFU

- Analyzed number systems using Matlab to demonstrate error propagation and error estimation
- Explored the solution of nonlinear equations using bisection and secant method to choose the best for efficiency
- Estimated the future population of BC using Taylor and Runge-Kutta methods in Matlab to show the importance of choosing initial data point

### SOCIAL NETWORK APPLICATION

Jan - Apr 2015

Introduction to Software Engineering , SFU

- Developed a social network program using C++
- Wrote test cases using Unittest++ to improve the stability
- Implemented user authentication feature with REST Api to make the server secure
- Familiarized with Microsoft Azure services that allowed the program to respond to more user requests

## COMMUNITY ENGAGEMENT

### STUDENT AMBASSADOR

Sep - Dec 2016

- Developed strong communication skills through constant interactions with fellow volunteers to help build team spirit
- Assisted exhibitors for various events to meet their satisfaction
- Motivated a group of 10 people, motivate them to engage in the event

## EDUCATION

### SIMON FRASER UNIVERSITY, BURNABY, BC

2013 - Present

- Bachelor of Computing Science
- Expected graduation 2019