SICONG JIA

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SKILLS

Programming
- C/C#/C++, JavaScript, Python, Visual Basic, Matlab, Swift

Web Technologies
- HTML, CSS, Nginx, AWS, GCloud

Systems Management
- Windows, Linux, Mac OS, Vagrant, Chef

Tools
- Github, SVN, Visual Studio, Photoshop, Autodesk Maya, Unity

Compilers
- Bison, Flex, LLVM

Databases
- SQL server, My SQL

WORK EXPERIENCE

KERNEL DEVELOPER
Jan - Aug 2018

Gumstix Research Canada, Ltd.
- Maintained custom embedded Linux distributions, Linux kernel, bootloaders for various platforms (Raspberry Pi, TI Omap) using 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 product order system using Swift and REST API
- Write payment features using Alipay and Wechat Pay
- Build and maintain a Linux back-end server on Google Cloud
- Understand App Store publish procedure
- https://sjia.page.link/jdF1

TECHNICAL PROJECTS

DECAF LANGUAGE COMPILER
Apr- Aug 2016

Principles of Compiler Design, SFU
- Developed a lexical analyzer using Flex that can prevent input error
- Designed a syntax analyzer by means of context-free grammar to check the semantic follows the rules of language
- Implemented code generator which takes the intermediate code and maps it to the target machine language so computers can run

MOVIE DATABASE
Sep - Dec 2016

Introduction to Database Management, SFU
- Constructed query execution plan to make database run more efficient
- Developed graphic application which made SQL more user friendly
- Familiarized with XML and able to write XPath query which enables more options for database

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

2013 - Present

SIMON FRASER UNIVERSITY, BURNABY, BC
- Bachelor of Computing Science
- Expected graduation 2018