a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

Engineering Co-op Program
Faculty of Applied Science
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Lisa Kirby

Computer Engineering

TECHNICAL SKILLS

Computer

- Java
- HTML, CSS, JavaScript
- C
- Arduino
- Verilog, Assembly
- Git
- Shell Script – Linux

Electrical Equipment

- Microcontroller
- Oscilloscope
- Signal Generator
- Multimeter
- Breadboard/wiring
- Soldering Iron

Certifications

- Licensed BC Class 5 Driver
- CPR Level C certified

ACADEMIC & CO-OP STATUS

Academic Program

- Computer Engineering option; 3 of 8 academic terms completed
- Anticipated date of graduation: May, 2020

Co-op Status

- Completed 0/5 work terms; available for 4 or 8 months beginning May, 2017

TECHNICAL PROJECTS

January, 2017

Arduino Morse Code Generator

- Wrote a program in Arduino that translates user input into Morse code through the usage of lookup tables
- Implemented audio and visual display interfaces - used a Piezzo buzzer and a basic led for the output of Morse code, and a seven-segment led to display concurrent English translations

Arduino “Guess the Number” Game

January, 2016

- Utilized port and bit manipulation to write an Arduino program that prompts its user to ‘guess’ a randomly selected number, telling the user whether an incorrect guess is higher or lower than the ‘right’ number
- Implemented user interface without the usage of any pre-existing libraries – program writes and moves messages on a Liquid Crystal Display (LCD) and reads user input in the form of numbers from a keypad

Simple RISC Machine

November, 2016

- Collaborated with a partner to write a Verilog program that functions as a “Turing complete” computer – a system that can implement any algorithm given enough memory and time
- Successfully used program to perform basic encoded calculations on the Terasic De1-Soc Board

Completion/Extension of a Virtual ‘Ecosystem’

November, 2016

- Wrote a program in Java (given a pre-existing, basic GUI) that displays a virtual, dynamic ‘ecosystem’ consisting of ‘intelligent’ animals, food, items, and vehicles
- Used inheritance and interfacing to maximized code reuse

Autonomous Claw

January, 2016 – March, 2016

- Worked within a team of 4 four UBC engineering students to design, build, and program a mechanical, ground-triggered claw
- Developed an Arduino program that triggers the opening/closing of the claw – utilized data read from a ground-sensor to control an Arduino driven motor

OTHER WORK EXPERIENCE

Swiss Chalet Rotisserie and Grill, North Vancouver, BC **June, 2016 – October, 2016**

Waitress

- Learned the Point of Sale (POS) system, a 5-page menu, and all food options/substitutions within a week of employment – was awarded additional and busier hours 2.5 weeks ahead of the restaurant norm
- Greeted, seated, and served up to twelve tables concurrently, ensuring that customers received their orders within 20 minutes of order placement

Meridian Farm Market, North Vancouver, BC **August, 2014 – April, 2015**

Multi-Department Customer Service Representative

- Met monthly sales quotas by continuously memorizing and advertising departmental features/promotions
- Achieved a score of 100% from two secret shoppers in all categories in a very fast-paced environment

VOLUNTEER WORK EXPERIENCE

North Shore Taekwondo, North Vancouver, BC **November, 2011 – November, 2014**

Junior Instructor

- Taught youth to apply self-defense in a safe and open learning environment
- Adapted curriculum to suit each child's unique learning needs by utilizing visual, audible, and physical learning techniques in parallel
- Earned the "Most Outstanding" Award in 2014 for contribution to leadership and commitment to learning

Catching the Spirit (CTS) Youth Society, Vancouver, BC **June, 2015 – August, 2015**

Peer Leader

- Organized CTS camps devoted to educating youth on the importance of sustainability and the environment
- Collaborated with a team of 3-5 other Peer Leaders to plan, schedule and execute all camp activities and meals
- Lead sustainability projects, including the successful construction of a community green house at the Justice Institute of British Columbia (JIBC) and the elimination of invasive plant species from the Burnaby Lake area

EDUCATION

The University of British Columbia Expected May 2020
Bachelor of Applied Science – Computer Engineering option

Handsworth Secondary School September, 2010 – June, 2015
98% average over Grades 11 & 12

AWARDS

UBC Entrance Award 2015 (All)
BC Graduation Program Examinations Scholarship (Top 20 in BC)
Handsworth Secondary Most Outstanding Student Award
Handsworth Secondary Top Honor Roll with Distinction
TD Canada Trust Achieve the Dream Scholarship
Jean C Lee Scholarship
Schulich Leader Nominee
Loran Scholar Nominee

PROFESSIONAL AFFILIATIONS

APEGCBC – Member Advantage Program for Students (MAPs)

ACTIVITIES AND INTERESTS

- Embedded Systems – Arduino, De1-SoC
- Sports – Rugby, Powerlifting, Half-Marathoning, Taekwondo