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Emmett Tan

Computer Engineering

TECHNICAL SKILLS

Programming	Software/OS	Hardware and Tools Experience
● C	● Eclipse	● Altera FPGAs
● C++	● Xcode	● Microcontrollers
● Objective-C	● Quartus II	● Multimeters
● Java	● Cognex	● Oscilloscopes
● JavaScript	● Subversion	● Soldering Irons
● Vb.net	● Git	● Drill Press
● Assembly	● Windows	
● VHDL	● Mac	
	● Ubuntu	

ACADEMIC & CO-OP STATUS

Academic Program
- 5 of 8 academic terms completed
- Anticipated date of graduation: May, 2017

Co-op Status
- Completed 1/5 work terms; available for 4 months beginning September 2015

TECHNICAL PROJECTS

DJammy: Android Music Jamming App   November 2014
- Implemented instrument class and allowed users to pick from one of four instruments and choose which key to play in
- Built the circuit, hardware, and software for the LED lights which synchronizes itself to the beat of the music
- Created a little Easter Egg that matches the LED lights to the beat of Sandstorm by Darude

Bomberman Videogame for the Nios II Embedded Processor   September 2014
- Implemented bitmap drawer code, which reads and draws a 24 bit color 20x20 pixel bitmap from the SD card
- Wrote erase and redraw functions in order to allow user to move character across map
- Built code to receive and draw an 11x11 game map from randomly generated array

VCR Controller   October 2013
- Utilized VHDL coding to program a virtual VCR machine onto an Altera DE2 board
- Managed time efficiently and was one of the few students to complete the project on time
- Delegated tasks among group members according to their skill level

TECHNICAL EXPERIENCE

Vanrx Pharmasystems Inc.   **January 2015 (Current Employer)**
Systems Engineering Intern
- Built a robot automation control interface to allow easy rapid prototyping of new robot design ideas
- Assisted R&D with setting up new design projects and conducting thorough testing
- Setup vision system and calibrated cameras to detect any missing vials

Idea Rebel   **July 2014 – August 2014**
Mobile Developer Intern
- Used Xcode to debug and test various parts of a social media app such as profile settings page, landing page, sign up, login, and user edit profile page in order to ensure a smooth user experience
- Ensured that user's information is properly updated by re-fetching data through a Rest-API when changes are made
- Implemented full password reset functionality, enabling users to send a password reset URL to their email which becomes void when the user successfully changes their password or if 24 hours have passed

OTHER WORK AND VOLUNTEER EXPERIENCE

Highpeak Concrete   **July 2013 – August 2013**
Concrete Worker
- Performed construction work on various locations throughout the lower mainland to provide buildings with stable concrete floor foundations
- Flattened out liquid concrete using concrete vibrators and rakes to make the concrete more smooth and level
- Worked together with difficult and varied individuals to fill up concrete walls

The Artona Group Inc.   **June 2009 – July 2013**
Logistics Worker
- Moved boxes of picture frames from basement storage space to the office top floor which resulted in office work being accomplished more efficiently
- Sorted and transported gowns into storage in order to organize supplies and free up office space
- Assisted customers in graduation photo attire and communicated with them, which resulted in satisfaction of customers from the accessibility of service

Vancouver Minor Hockey Association   **October 2008 – October 2010**
Referee
- Facilitated hockey games twice a week for two years for the VMHA to provide smooth running hockey games
- Worked together in a team with other referees by using communication skills to deliver a professional game environment
- Dealt with complaints from players/coaches in a diplomatic fashion which resulted in possible disputes being avoided

EDUCATION

University of British Columbia   **September, 2012 – May, 2017**
Bachelor of Applied Science - Computer Engineering

ACTIVITIES AND INTERESTS

- Piano Improv
- Biking