
DYLAN BELVEDERE

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Education

September 2010 -
June 2017

Bachelor of Applied Science - Mechatronics Systems Engineering, Computer Science.
Certificate - Chinese Studies

Simon Fraser University

- Industrial, Manufacturing and Systems Courses - PLC, industrial robotics, material handling systems, production lines, assembly systems, robotic cell design, cellular manufacturing, quality control, advanced kinematics for robotics systems, fluid/electrical/mechanical/thermal system modelling, feedback control systems
- Electrical and Mechanical Courses - Fluid Mechanics, thermodynamics, statics and dynamics, MEMS, power electronics, sensors and actuators, digital circuits
- Programming Courses - Artificial Intelligence, data communications and networking, OS design, databases

September 2017 -
December 2017

Siemens Mechatronics Systems Certification Level 1

Administered by Simon Fraser University

- PLC programming Siemens Step 7
- Pneumatic and Hydraulic systems with Festo components and simulation
- Troubleshooting on Siemens S7-1500 PLC assembly line, and simulation software
- Industrial Electrical and Mechanical systems design

Skills

PLC/HMI Programming

Siemens Step 7, WinCC Flexible, LogixPro-500

Programming

C, C++, Linux, Assembly, MATLAB, SQL, No-SQL, NodeJS, ReactJS, ExpressJS, AngularJS, Java(Android), HTML, Python

CAD Design

Solidworks, OnShape, Sketchup, Blender

PCB Design

KiCAD, Altium

Work Experience

June 2019 - April 2022 Product Engineer

Notifai

- Development of WiFi and LoRa based air quality detection devices
- Creation of a variety of test jigs (Linux, Python) for our electronic devices
- Web and app (Angular, NodeJS) development to work along with our electronic devices
- PCB (Altium) and 3D CAD (Solidworks) design to complete projects and test jigs
- Embedded programming on ST Microcontrollers using C
- Experience using UART, I2C, and SPI to communicate with device sensors
- Setup and implementation of LoRa Basics Station on Raspberry Pi based Gateways
- Sourcing of components using Mandarin Chinese

March 2017 -
October 2017

Integration Engineer

Plasmatic Technologies Inc.

- Development of home security keypad
- Linux system embedded development using C++, ReactJS, ExpressJS, and NodeJS
- TI MCU Programming in C
- PCB Design in KiCAD and electronics circuit design
- Communication protocols MQTT, SPI, I2C, UART
- AWS Gateway, Lambda, DynamoDB, IoT
- 3D prototype design using Solidworks

April 2015 -
September 2015

Product Development Engineer Co-op

ORA Scents

- Development of smart phone controlled scent diffuser
- 3D prototype design using Solidworks
- ESP8266/Arduino programming in C
- HTML interface design for sending requests
- Electronic circuit design including LEDs and Colpitts oscillator

September 2014 -
December 2014

Electrical and Testing Engineer Co-op

Corvus Energy Ltd.

- Development of test systems for lithium ion battery management systems
- PCB and schematic design in Altium
- Test system for battery power supplies
- Battery testing heat, cycle, and ripple

Extra Curricular

2015 - 2017

Founder and Director

Maker Cube Society

Non-profit organisation that I founded which ran a community technology work and education space (makerspace) in Surrey, BC

2014 - 2016

Competitor and Organiser

Simon Fraser University Engineering Competition

Competitor and winner of the competition in 2013 and 2014, organiser in 2015 and 2016

2014 - 2017

President and Vice-President

Mechatronic Systems Engineering Students Society

Lead in many positions at the engineering student society at Simon Fraser University

Awards

- Surrey Board of Trade - Surrey Top 25 Under 25 - 2016
- SFU - Mechatronics Triple A Award
- Next36 - Finalist - 2017

- Huawei Mobile - Seeds Award - 2016
- APEGBC - Student Member Award
- APEGBC - BC Hydro 4th Year Award

Additional Skills

- Soldering
- Electronic Testing
- Feedback Controls

- Mechanical Design
- Electrical Design
- Intermediate Mandarin Chinese

- Embedded Design
- 3D Printing and Rapid Prototyping
- Basic French