

# FONDA CHAU

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## EXPERIENCE

**JANUARY 2017 – SEPTEMBER 2017**

### **ELECTRICAL ENGINEERING COOP, VANRX PHARMASYSTEMS INC**

Update and maintain electrical, pneumatic and P&ID schematics for the SA25 Aseptic filling system and accumulator on Autocad  
Conduct load studies, heat dissipation studies and arc flash studies for the SA25 and the accumulator  
Worked on new functionality to the systems, such as the status beacon system, load cells and scales  
Built various test rigs for manufacturing purposes and component testing  
Work closely with other engineers, manufacturing technicians, and the integration team

**MAY 2016 – DECEMBER 2016**

### **SOFTWARE TEST COOP, SIERRA WIRELESS**

Test the Air-Prime Series of embedded modules and their associated software  
Ran Functional and stability test on the modules and software  
Wrote scripts in python to automate the test cases  
Trained 5 new employees on testing procedures, bug identification and test automation

## EDUCATION

**MAY 2019**

### **BACHELOR OF APPLIED SCIENCE, UNIVERSITY OF BRITISH COLUMBIA**

Electrical Engineering, Biomedical Option  
Dean of Applied Science's Honour List (2014-2016)  
Outstanding Capstone project award  
Graduated with an 80.6% accumulated average

## SKILLS

#### *Development Equipment*

- Oscilloscope
- Signal Generator
- Multimeter
- Soldering Iron
- Microcontrollers
- Development boards (DE1-SOC, Raspberry Pi)
- PCB design

#### *Programming Languages*

- C/C++/C#
- Python
- Verilog/System Verilog
- Assembly(ARM, ASM)
- Arduino

#### *Software*

- Matlab
- AutoCad/AutoCad Electrical
- Solidworks
- Altium
- Visual studios
- Altera Monitor
- Quartus/Model Sim

## ACTIVITIES

### **NON-CONTACT MEASUREMENT OF VITAL SIGNS, ELEC 494 BIOMEDICAL CAPSTONE**

A system involving a FMCW Radio, Video Camera, Infrared Camera to measure Respiratory Rate, Heart Rate and Body temperature.  
System targeted to be placed in hospital waiting rooms with possible application to other settings.  
Developed detecting respiratory rate and heart rate by detecting motion through video and infrared camera and integrate infrared camera for temperature comparisons  
Worked with 4 other students and was awarded with Outstanding Capstone project.

### **PID CONTROLLED LASER LIGHT SHOW, ELEC 391 ELECTRICAL ENGINEER DESIGN STUDIOS II**

Design and built 2 Brushed DC Motors with optical encoders  
Motors are controlled by PID controllers to move a laser to display an image of a Pacman's ghost on the wall  
Worked with 3 other students and was awarded with first place based on the entire year's class projects

### **LAPAROSCOPY INTERFACE, ELEC 371 BIOMEDICAL ENGINEERING INSTRUMENTATION**

Designed interface for Laparoscopy training  
Contain Video reference for appendectomy, step walkthrough, and final check box reminders, Rotatable and resizable video for easier camera manipulation, Stopwatch to allow students to determine efficiency by knowing the amount of time to complete tasks, Randomized blood to obstruction view for more realistic training, Screen capture for student evaluation and later reference, ability to draw shapes on video screen for highlight areas of interest and Chat communications with professor and other students in distance learning environments.