

Natalie Smith | Developer

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Key Competencies

- Hands on experience modern development tools and technologies
- Full-stack development
- Familiar with Agile methodologies
- Experience writing test plans, creating test cases and writing functional unit tests
- Ability to work effectively within a team setting while also being a motivated, proactive and self-starting independent worker
- Possess willingness and work ethic to learn new technologies and skills
- Extensive experience with customer service and practical problem-solving as well as exceptional written and verbal communication skills

Technical Skills

- HTML5/CSS3
- Angular 2
- Ruby on Rails
- C/C++
- C#/.NET
- Responsive Design
- Javascript/jQuery
- Unit Testing
- JSON/XML
- Bootstrap
- UI Design
- Version Control

Education

University of Victoria
B.Eng, Biomedical Engineering
Specialization in Mechatronics

Victoria BC
2011–2016

Experience

University of Victoria
Undergraduate Researcher

Victoria BC
May–Aug 2015

Worked in the Crystal Growth Laboratory designing a new control system for a 30 zone crystal growth furnace.

- Ran experiments on the crystal growth furnace including material preparation, furnace loading, and sample testing using a Scanning Electron Microscope
- Designed and implemented a fuzzy PID control system in LabView with adaptive control for the crystal growth furnace

University of Victoria
Undergraduate Researcher

Victoria BC
Sept–Dec 2013

Worked in the Biomedical Design and Systems Laboratory developing a medical phantom for use in testing and calibrating an ultrasound-controlled hand prosthesis.

- Designed and developed a medical phantom representing the ultrasonic properties of the tendon-hand system
- Tested prototypes and determined ultrasonic properties of materials
- Used an Ultrasonix ultrasound machine and MatLab to capture video and images of phantom prototypes

Island Health

Victoria BC

Clinical Engineering Co-op

Jan–Apr 2013

Worked in the Biomedical Engineering department of Island Health to assist in tasks such as device procurement and installation, cost analysis, preventative maintenance, and consulting with medical professionals.

- Assisted in medical device procurement and installation in hospital settings
- Performed cost analysis for major contract renewals
- Performed preventative maintenance on medical devices such as infusion pumps, defibrillators, and AEDs
- Consulted with medical professionals within multiple health networks across Canada in preparation for a networked fetal monitoring system

Saanich Commonwealth Place

Victoria BC

Team Leader, Facility Attendant

2011–Present

Work in supervisory roles as a Team Leader and Facility Attendant to oversee multiple staff and ensure that programs are running safely and effectively.

- Team Leader: Directly supervise a team of lifeguards to ensure safe pool coverage, oversee first aid situations, mediate public relations situations and provide excellent internal and external customer service
- Facility Attendant: Responsible for overseeing all facility programs, coordinating and providing back-up for all staff and conducting emergency procedures in case of emergencies

Technical Projects

Web Development: Developed multiple full stack web applications in both Ruby on Rails and Angular2. Portfolio available upon request.

Mechatronics: Designed the firmware to accomplish a conveyor belt sorting task

- Integrated multiple sensors, actuators and motors with a microcontroller programmed in C

Neural Networks: Designed a neural network to classify data instances in an online breast cancer database as malignant or benign

- Used MatLab to implement a three-layer feedforward neural network to automatically classify instances of breast cancer malignancy

Biomedical Image Processing: Solved task of retinal vessel segmentation in retinal images by using MatLab to implement adaptive local thresholding by multithreshold probing

References

Dr. Nikolai Dechev

Dr. Kelly Stegman-Brooks

Michael Sheehan

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