

Simon M. A. Newell

Email: snewell5@my.bcit.ca

Linkedin: <https://ca.linkedin.com/in/simon-newell-489885126>

Github: <https://github.com/smanewell>

Phone Number: (604) 828 – 6556

Personal Profile

I am currently completing a Computer Systems Technology Diploma at BCIT. I hold a Bachelor of Applied Science in Mechanical and Biomedical Engineering from the University of British Columbia. I am detail oriented with a strong interest in design and problem solving.

I have experience in multiple design teams, both through my academic experiences at BCIT and UBC, and in professional environments during Engineering co-op terms. In addition to my recent skills in programming and software development, I have professional experience in quality control testing and rapid prototyping, computer aided design, 3D printing, and technical reporting.

Professional Skills

Programming Languages/Coding

- Python
- JavaScript
- HTML5 and EJS
- Node.js
- MongoDB
- CSS & Bootstrap

Software & Development Tools

- Git/Github
- PyCharm
- Visual Studio Code
- Microsoft Office Suite
- SolidWorks
- MatLAB

Communication Skills

- Technical Report Writing
- Experimental Test Protocols
- Quality Assurance Test Documentation
- Design Draft Submission
- Inter-Office Communication

Projects

WanderNot

Navigation Assistance Web Application (Computer Systems Technology)

- Created a functional Web Application from beginning to end in 5 weeks, in a team of 4 exclusively online.
- Designed User Interface, and implemented it using HTML5, EJS, and CSS.
- Wrote Code for fetching user input and preparing it for use in MongoDB Database using JSON format.
- Worked with Leaflet Map API to develop custom map annotations.

Flexipin

Orthopaedic Surgical Tool Development (Mechanical Engineering Capstone Project)

- Created and conducted a survey of surgeons for stakeholder analysis, used to define device requirements and guide early design choices.
- Wrote and performed quantitative testing of tool prototypes, resulting in critical design choices.
- Created all final design drafts, assembly, and use instructions which would be used to produce the tool's final design, as well as continue development of the project.

Work Experience

Verathon Medical Canada ULC

Dec 2014 - Aug 2015

Mechanical Engineering Co-op Student

- Designed and fabricated prototype components and testing tools using Computer Aided Design Software (SolidWorks) and Extruded Plastic and Stereolithography 3D printing methods.
- Updated design documentation and product assembly instructions with revisions made by senior engineers.

- Helped program a MS Access database of chemical efficacy results for all products tested.
- Wrote test protocols for product efficacy and designed durability testing apparatus. Apparatus included a series of autonomous stepper motors designed to actuate switches until failure and record results.
- Performed efficacy testing on medical devices and components, and submitted formalized reports of results.
- Completed Quality Assurance sampling and testing for outgoing products.
- Catalogued device failures and damage reports for auditing, tracking date, number faults, and type of fault.
- Assembled Medical Devices on manufacturing floor and fabricated a set of drying jigs.

UBC Mechanical Engineering Department

Sep 2013 - Dec 2013

Student Assistant

- Organized and updated online course material pages using "Connect" management software.
- Communicated professionally with faculty, office staff, and other student assistants about course administration.
- Wrote instruction guides for the use and administration of "Connect" and the Mechanical Engineering Intranet.
- Created custom graphics for presentations on UBC Mechanical Engineering options.
- Edited Mechanical Engineering Department Intranet, Webpages, and Facebook, updating and adding information.
- Identified systemic errors in course tutorial software, and developed a fix allowing course continuity

Workers' Compensation Appeal Tribunal

Aug 2012 - Sep 2012

Digital Archival Clerk

- Scanned, and analyzed over 2000 individual typed and handwritten case documents, including memorandums, personal letters, evidence submissions, and other legal files for key information.
- Classified and digitally archived scanned documents ensuring consistency with naming and formal protocols.

Indigo Books and Music

Nov 2018 – Dec 2019

Customer Experience Representative

- Communicated product information, store policies, and general information with customers.
- Managed Store Cash Transactions, including cashier duty and store and cash desk opening and closing.
- Trained New Employees in store policies and systems.

Education

Bachelor Applied Science - Mechanical Engineering (Biomedical Option)

2016 (Graduation)

University of British Columbia

Diploma – Computer Systems Technology (In-Progress)

Jan 2020 – Present

British Columbia Institute of Technology

Personal Interests

- Animation and 3D Modelling
- Drawing, Sketching, and Cartooning
- Miniature Modeling
- Fitness and Exercise
- Boardgames, Videogames, and Tabletop Roleplaying
- Reading/Writing Science Fiction/Fantasy