

Arnold Yeung

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TECHNICAL SKILLS

Manufacturing and Prototyping

- CSA Drafting Standards
- Machine Shop
- Electrical and Instrumentation Equipment
- Breadboard Prototyping
- Rapid Prototyping

Engineering Software

- MATLAB, Simulink
- AutoCAD
- SolidWorks
- Microsoft Visual Studio
- Microsoft Office Suite (Word, PowerPoint, Excel, Project)

Programming

- C, C++, C#, Python
- Embedded Systems (Embedded C)
- Multi-Threaded Programming
- Machine Learning
- Unified Modeling Language (UML) Diagrams

Design and Project Management

- Engineering Design Process
- Risk Management
- Technical Reports
- Peer-Reviewed Publications
- Patents
- Business Plans, Market Research

WORK EXPERIENCE

Data Scientist and Administrative Manager

Dec 2015 to Apr 2017

EEGlewave Inc.

- Co-developed software technology for use in medical monitoring and predictive assessment
- Wrote MATLAB and Python scripts for machine learning applications and for interacting with a MySQL database
- Directed and organized validation studies with over 100 human participants for data collection and gaining confidence from investors and the medical community
- Developed a business plan by identifying customer needs through customer segmentation and market research
- Managed finances (budget, grants, quotations, taxes, and payroll) to ensure available funds for expenses

Co-op Research Engineer

Jan 2015 to Apr 2015

Cadex Electronics Inc.

- Conducted statistical data analysis to develop a battery health classification method using MATLAB, Excel, and VBA, resulting in a pending US patent
- Created MATLAB and LabVIEW programs for automated data acquisition, processing, and analysis
- Optimized existing firmware to increase battery classification accuracy and precision
- Wrote technical reports for internal documentation and a patent application

Engineering Research Assistant

Jun 2014 to May 2016

The University of British Columbia, Faculty of Medicine

- Analyzed brain electrical signals (EEG) using data mining and statistics in MATLAB
- Organized and conducted a study to compare and evaluate sensor performance under different conditions
- Designed and assembled a wearable cap with implanted EEG sensors for human subject testing
- Invented a risk management tool for probability-based failures, based on the Failure Modes and Effects Analysis (FMEA)
- Published 2 peer-reviewed publications and conducted an oral presentation at the 2015 International IEEE EMBS Conference

Mechanical Engineer Intern

May 2013 to Dec 2013

LB Foster Rail Technologies Corp.

- Created technical drawings in AutoCAD following CSA standards for internal and external manufacturing
- Designed sheet metal products in SolidWorks and conducted Finite Element Analysis (FEA) simulations to meet national safety requirements
- Redesigned a measurement device, improving accuracy by 100% while maintaining same production cost
- Organized engineering equipment training sessions with external vendors
- Composed product installation and maintenance manuals for customers

EDUCATION

University of British Columbia

Nov 2016

Bachelor of Applied Science with Distinction – 3.89 / 4.33 CGPA

Mechanical Engineering (Mechatronics Option) with Minor in Commerce