

Dave Scott

MACHINE LEARNING ENGINEER · DATA SCIENTIST

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Education

University of Alberta

Edmonton, Canada

M.Sc. IN COMPUTER PROCESS CONTROL ENGINEERING · GPA 3.8/4.0

Sep. 2017 - Current

- Received **Alexander Graham Bell Canada Graduate Scholarship** – the **highest** level of scholarship for a Canadian Master's Scholar, **14 additional Awards** relating to Leadership, Mentorship, Academic Achievement

University of Alberta

Edmonton, Canada

B.Sc. IN CHEMICAL ENGINEERING · GPA 3.7/4.0

Sep. 2012 - Apr. 2017

- Capstone Design Project, **1st Place, 8 additional Awards** relating to Communication, Leadership, Academic Achievement

Experience

Tsinghua University

Beijing, China

MACHINE LEARNING ENGINEER - MASTER'S EXCHANGE

Feb. 2019 - Current

- Solved a previously-unsolved data science problem by developing a robust signal-processing Machine Learning algorithm (MATLAB, Python), with direct industrial applications for >5 industries.
- Developed a novel statistics formulation for non-stationary and stationary process data that identified and detected faults 20% faster and raised 35% less false alarms than the PCA, CVA, and PLS multivariate statistical process monitoring methods.
- Built fully automated modelling and monitoring pipelines (Scikit-learn, Tensorflow, MATLAB) for industrial process data, including backpropagation algorithms and intelligent model initialization.

University of Alberta

Edmonton, Canada

COMPUTER & MACHINE LEARNING RESEARCH ENGINEER

Sep. 2018 - Feb. 2019

- Developed fault detection software (Python) to analyse pump faults, creating a simple GUI interface for end-user to interact with the software.
- Implemented data mining and machine learning pipeline (KnowledgeNet Analytics, C++) for a Cloud Control System that contained over 5000 process variables.

Schlumberger Limited

Tulsa, USA & Calgary, Canada

DATA ANALYTICS FIELD ENGINEER, INTERN

Jun. 2018 - Jul. 2018

- Optimized machine learning pipeline to detect 10 drilling faults and provided adjustments for engineers, decreasing the required time for the drilling operation.
- Designed IoT solution for connecting data pipeline from microprocessors to satellites, delivering a solution to Chevron that eliminated inefficiencies and saved the client over \$100,000 USD in lost time.

Canadian Natural Resources Limited

Calgary, Canada

DATA SCIENCE & CONTROLS ENGINEER, CO-OP STUDENT

May. 2016 - Dec. 2016

- Modelled and forecasted project progress of 80 capital projects into economic models and graphs (RStudio) to deliver key performance indicators for projects to senior management.
- Designed project analytics software (VBA), reducing required time to upload project updates for project managers by over 30%.

Hackathons and Data Science Competitions

2019 **1st Place**, Tsinghua University and UNSW Data Science Competition

Beijing, China

2019 **1st Place**, Tsinghua University Internet of Things (IoT) Hackathon

Beijing, China

Interesting Experiences

Rapid Fire Controller e-Commerce Business

Edmonton, Canada

CO-FOUNDER

April 2009

- At age 14 I started my first eCommerce business. I modified Xbox 360 controllers in bulk using circuitry and electrical engineering principles, to make players more competitive than their peers.
- I marketed my products locally on social media and as well sold them on eBay, Grossing over \$5,000 dollars USD in sales in less than one year.