

Shihao Miao

[1-5146258867] shihao.miao@mail.mcgill.ca

EDUCATION

McGill University

Montreal, Quebec, Canada

Bachelor of Engineering

[2013 Aug.-2018 Dec.]

Major in Materials Engineering (Co-op) Last 2 years GPA 3.81

Minor in Computer Science (9 courses completed with 5A and 4A-)

McGill Engineering Dean Honor List 2018-2019

Rio Tinto –Richards Evans International Exchange Awards Scholarship 2018-2019

NSERC's Experience Awards 2018-2019

CARIC research fund 2016-2017

Relevant courses in Computer Science:

Algorithm and Data Structures(Java)

Numerical Computing(MATLAB)

Operating System Design(C)

Applied Machine learning(Python)

Intro to Computer System(MIPS)

Atomistic Modeling and Simulation(LAMMPS)

Functional Programming (OCaml)

Intro to Software System (C Bash Python Git GNU)

RELEVANT COURSEWORK PROJECTS

Machine Learning | Applied Machine Learning Projects

- Predicted the ranking from Amazon product reviews by using classical machine learning algorithm such as support vector machine, decision trees, Naïve Bayes.

- Classified 'Quick Draw!' images based on convolutional neural network architecture with 10000 training images belonging to 31 categories. Fine-tuned the models and obtained an accuracy of 80% on test set.

Operating System | Concurrent Computing Project

- Implemented interactive shell, preemptive multi-tasking kernel, priority based scheduler and inter-process communication

Simulation | Atomistic Simulation Project

- Wrote LAMMPS code to perform mechanical testing simulation on copper nano wire.

WORK EXPERIENCE

[Group Nanoxplore inc.]

Montreal, Canada

[Composites Testing and Production]; [Engineering intern]

[2018 May] – [2018 Sept.]

- Performed data analysis to verify material test performance
- Built database for raw material inventory in Microsoft Access
- Performed extrusion, injection, failure analysis, welding, and sample preparation

[McGill University]

Montreal, Canada

[Image Analysis]; [CARIC funded research assistant]

[2017 May] – [2017 Sept.]

- Reconstructed X-ray tomographic images for metallic samples
- Implemented machine learning algorithms for X-ray image classification
- Performed mechanical tests for 3-D printed samples

[Siemens Canada]

Montreal, Canada

[Aero-derivative Turbine Design]; [Engineering Intern in material&processing team]

[2017 Jan.] – [2017 April]

- Performed gap analysis between Rolls Royce shot peening process and its industrial counterpart.
- Checked and verified manufacturability by comparing supplier's processing data card with given specifications.

EXTRA CURRICULAR ACTIVITIES

McGill rocket team: Developed mathematical model that related peak altitude of rocket to the volume of propellant.