

# Haixiang Sun

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*Strongly interested in forensic engineering, available for 4 month internship in May 2019*

## EDUCATION

### **Bachelor of Engineering, Materials Engineering Co-op Program**

Sep 2014 – May 2019 (expected)

McGill University, Montreal, QC

CGPA 3.78/4.00 – Winning *W.M. Williams Scholarship, Savard and Lee Scholarship, John Howard Scholarship*

## PERSONAL EXPERIENCE

### **Advanced Electronics & Photonics Group, National Research Council Canada**

May 2018 – August 2018

#### R&D Engineering Intern

- Developed new post treatment process for screen printed silver conductive tracks and antennas, improved the electrical conductivity by more than 50% and published the results at IEEE IFETC conference
- Assisted in designing promotional materials and organizing the IEEE International Flexible Electronics Technology Conference in Ottawa, the 3-day conference was attended by more than 200 scholars across the world
- Voluntarily established an automated scientific imaging construction and stitching system with accuracy up to 1 micron, received the excellence performance award from NRC for this initiative.

### **Advanced Design: Multidisciplinary Design Optimization, Bombardier**

Sep 2017 – April 2018

#### Aerospace Engineering Intern

- Provided technical solutions to replace analytical and modeling software such as ESDU and Isite, which potentially saves around \$80,000 software licensing costs and yearly subscriptions for the company
- Produced a 3-components 2-steps automation workflow that optimizes multiple aircraft stability variables using Python and RCE software, reduced the time consumption of each trial by more than 50%
- Initiated a research collaboration project between Bombardier and McGill Materials Engineering Department, secured more than \$30,000 research funding from Natural Sciences and Engineering Research Council of Canada

### **High Temperature Thermochemistry Laboratory, McGill University**

June 2016 – Aug 2016

#### Research Intern

- Reviewed all the past literature researches regarding  $\text{ZrO}_2\text{-RE}_2\text{O}_3$  (Gd-Lu) systems, implemented Quasi-Chemical modeling method to reduce the complexity of modeling equations
- Completed 8 thermodynamic models on the  $\text{ZrO}_2\text{-RE}_2\text{O}_3$  (Gd-Lu) systems using FactSage software, predicted the mathematical representation of the thermodynamic equations within 12% error range

## LEADERSHIP EXPERIENCE

### **UpGen Bootcamp Executive Team, UpstartED**

April 2018 – Present

#### VP Corporate Relations & Workshop Facilitator

- Financial and in-kind sponsor outreach, manage relationships by being a direct point of contact with all sponsors onboard
- Ensure deliverables are met by both parties for signed-in sponsors, in-kind sponsors as well as speakers by communicating to the responsible portfolio
- Facilitated designed thinking workshop with more than 50 teachers from St. Thomas high school on the use of technology in school, it leads to multiple interesting solutions such as building tech-free zone, designing persuasive slogan and posters etc.

### **Metallurgy and Materials Society of CIM, McGill University, Quebec**

May 2016 – May 2018

#### McGill Student Chapter President

- Reconstructed the mandate and doubled the size of MetSoc McGill, focused on building connection with engineering companies for more collaborations and industrial exposures to our members
- Collaborated 4 industry tours with companies from aerospace, metallurgy and automotive industries, organized industry talks and workshops that served more than 150 students overall
- Won both 2016 and 2017 MetSoc Video Challenge Contest competing with 5 other universities on materials engineering related topics, promoted materials engineering discipline to industry and public.

## SKILLS & TRAININGS

**Software Skills:** Proficient with Microsoft Office (Word, Excel, PowerPoint)

Working experience with VBA, C&C++ programming, and Python

**Engineering Skills:** Extractive metallurgy (Hydro and Pyro metallurgy), Processing Engineering, Automation, Welding, Materials Science, Material Fabrication and Manufacturing, Material Analysis (SEM, XRD, XPS etc.)

**Language Skills:** English & Chinese: Fluent written and spoken;

**Trainings:** Workplace Hazardous Materials Information System (W.H.M.I.S.) safety training (Valid until 2019)

Design Learning, Lean Startup, Agile Development training workshops provided by UpstartED