HONG Xiaoyang

Nationality: China Gender: Male Date of Birth: Feb. 24, 1997

Email: hong19970224@gmail.com Mobile: +1 2269896071

Address: Room601 58 Cardill Crescent, Waterloo, ON, Canada N2L 3Y8

Education Background:

09/2019 – 01/2021 University of Waterloo, Canada

- Degree: Master of Engineering in Mechanical and Mechatronic Engineering
- Course: Algorithm Design and Analysis, Machine Control and Process. Scheduled: Data and Knowledge Modelling and Analysis, Quantitative Methods in BME etc.

09/2015 - 06/2019 Zhejiang University (ZJU), China

- Degree: Bachelor of Engineering in Architecture and Ocean Engineering
- Core Courses: Fundamentals of Computer Science (87), Calculus II (85), Ordinary Differential Equations (84), C Programming (83), University Physics (A) I (86), Ship Electrical and Communication (83),Ship Vibration(89),Fluid Dynamic(83)

01/2017 - 06/2017 University of Gothenborg, Sweden

- Exchange student for one semester. Course : Differential Geometry(G)

Work Experience:

08/2018-10/2019 Teaching Assistant, Remote, McGill University, Canada

- Assistance of courses by Prof Wei Qi of Desautels Faculty of Management at McGill University
- Field : Statistic

10/2018-01/2019 Internship in Bosch, Hangzhou, China:

- Logistic management: Using SAP for the daily delivery and backlog feedback.
- Product quality check under the instruction of the engineer

07/2017-08/2017 Internship in China State Shipbuilding Corporation, Wuxi, China

- Internship in the ship structure and procedure of the ship manufacturing.

08/2017 Freelance writer of the **Lonely Planet magazine** and **New Weekly magazine**

Research Experience:

07/2018- 09/2018 Northern Hemisphere Summer Research Scholarship Program, University of Auckland, Auckland, New Zealand

- Completed the project of ***Web-based Digital Twins for MTConnect/OPC UA-enabled Cyber-Physical Machine Tools*** in the Laboratory for Industry 4.0 Smart Manufacturing Systems (LISMS) under the supervison of Prof. Xun Xu (http://www.engineering.auckland.ac.nz/people/xun-xu)
- Results: Achieved the aim of building a web-based virtual machine tool, monitoring the machine tool's status and machining processes through web browsers.
- Conference paper of **DEVELOPMENT OF MACHINE TOOL DIGITAL TWIN AND ITS APPLICATIONS**, published on CIE 48 Meeting, 2-5 December 2018 （Second author）

03/2017-05/2018 A Soft Control Valve Imitated From A Biological Heart Valve, Zhejiang University, China

- It was a 3-member SRTP project proposed a software control valve constructed with a soft material to realize the active control of water pressure and flow through a biomimetic mammalian heart valve.
- I was in charge of the 3D Printing part and connection of the soft valbe with the high voltage dielectric module.

Prizes & Honors:

12/2016 Third-Class Scholarship for **Outstanding Merits** in Academic Year 2015/2016

07/2018 Scholarship of Summer Summer Research Scholarship Program，The University of Auckland

Skills:

AutoCAD Matlab Python

English Proficiency:

08/2018 IELTS (Acedemic): 7.0 (Listening: 7.5, Reading 7.5, Writing 6.5, Speaking 7.0)

10/2018 GRE: 324 (Vervbal 155, Quantitative 169)