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# VIVIAN CHU

## **SUMMARY OF QUALIFICATIONS**

- Exceptional critical thinker, with precise analytical skills and over 4 years of key experience in project management and communication
- Excellent team player and possesses strong research and interpersonal skills, as demonstrated as an Exploration Science Intern at the Canadian Space Agency
- Highly skilled at prioritizing and completing deadline sensitive tasks efficiently, evidenced by research and volunteer work with Humber River Hospital
- Extremely proficient in: Excel, Zotero, Endnote, InDesign, Illustrator, Lightroom, Photoshop, Premiere, Flash, Word, Powerpoint

### **TECHNICAL SKILLS**

Languages:

Python, Javascript, HTML, CSS

Frameworks & Libraries:

Pandas, Matplotlib, NumPy, Keras

**Laboratory Experience:** 

Wet Chemistry (Titrations, Volumetric Analysis)
Cell Biology (Culture, Separation, Surface Labelling)
Molecular Biology (DNA/RNA - isolation,
fragmenting, PCR, qPCR)

#### RELEVANT EXPERIENCE

#### **Exploration Science Intern**

Canadian Space Agency, Astronauts, Life Sciences & Space Medicine

Sept-Dec 2019, Jan-April 2019 Saint-Hubert, QC, CA

- Designed and systematically established an internal Oracle database for the organization of Health & Life Science space activities
- Developed a data visualization interface in Python for Health & Life Science business & experiment analytics
- Conducted a meta-analysis for the verification of molecular biology techniques for the implementation of a lab-on-a-chip bio-analytic platform on the International Space Station
- Authored a systematic review on the Natural History of Space Diseases through literature reviews and consultations with Mission Scientists and Flight Surgeons

#### Project Leader, Discovery Program

Sept 2016-April 2017

University of Toronto, Institute of Biomaterials and Biomedical Engineering

Toronto, ON, CA

- Awarded First Place in Physics at the IBBME Discovery Symposium on The Science Behind Prosthetics after showcasing research
  posters to a panel of judges (senior engineers, professors, teachers, industry)
- Designed, developed and prototyped a 3D-printed transfemoral prosthetic model using CAD programs (SolidWorks, AutoCAD)
- · Lead and motivated a group of four students by developing short and long term goals and addressing conflicts

Research Assistant Humber River Hospital, Professional Practice May-Sept 2018

Toronto, ON, CA

- Innovated and created efficiencies in data collection and survey management using Excel and automated online surveys
- Facilitated structured interviews with medical personnel and participated in department daily safety huddles
- Presented weekly and monthly data analysis reports to research team, and provided technical support for and assistance with the monitoring of data collection and quality assurance activities

## **VOLUNTEER EXPERIENCE**

Outreach Volunteer

Let's Talk Science

Jan 2018 - Present
Toronto, ON, CA

- Engage young students (K-12) in curriculum-aligned, hands-on science activities through school visits
- Communicates complex scientific concepts through explanation and demonstration to students
- · Strengthened leadership skills as a mentor to students, sharing experiences and providing advice

#### **EDUCATION**

University of Waterloo 201

Candidate for Bachelor of Science, Honours Co-operative Biology Waterloo, ON, CA Honours Co-operative Biology, Microbiology Specialization, Bioinformatics Minor

#### **EXTRA-CURRICULAR ACTIVITIES**

2018-Present Planning & Operations Committee Member

Waterloo Students and Microbiology, ext. Waterloo Center of Microbial Research

2019 Media Coordianator

University of Waterloo, Science Society

2018 Orientation Leader

University of Waterloo, Faculty of Science Orientation

## **AWARDS**

2017 Merit Scholarship
University of Waterloo

2017 Canadian Scholar

Horatio Alger Association of Canada

2015-17 Silver & Bronze Award

Duke of Edinburgh Award

2017 The Governor General's Academic Medal George Harvey Collegiate Institute

2016 School Champion

Fermat Waterloo Math Contest,

University of Waterloo