Hailin Wang

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Education

University of Toronto

Bachelor of Applied Science in Engineering Science, Robotics Engineering | Graduation: 2022 | President's Scholar of Excellence

- GPA: 3.60 | Deans Honour roll: Fall 2018, Winter 2019, Fall 2019, Winter 2020
- Relevant coursework: Digital and computer systems ECE253, Biomedical Engineering BME205, Engineering math and computation ESC103, Engineering Design ESC204, Computer algorithms and data structures CSC180

Skills

Software and programming: C#, C++, python, MATLAB, Verilog, ARM Assembly, HTML/CSS, Javascript, .NET Framework, Visual Studio, git, Arduino IDE, AutoCAD, Fusion360, Autodesk Inventor

Prototyping: 3D printing, Pneumatics assembly, CNC Machining, electronics systems, Engineering Design Process

Languages: English, native | Chinese, fluent | French, professional

Experiences

Rocscience Inc | Software Developer   Toronto, Ontario | *May – August 2020*

- Added UX/UI features using **C# and .NET framework** for major product updates to over 450 Universities in 120 countries
- Built CAD Annotation toolset for **3D Analysis** programs (EX3, RS3, Slide3) with an emphasis on usability and efficiency
- Refactored a library of 200 files using **Visual Studio** and **git** to reduce **MVVM** runtime performance to **<100ms**
- Implemented a dynamic visualization tool to represent aggregated simulation data

Haver and Boecker | Electromechanical Technician   North-Rhine-Westphalia, Germany | *May – August 2019*

- Implemented **CAM programming tools** to increase the efficiency of producing machined metal parts by **25%**
- Assembled over **30 pneumatic systems** for large industrial machinery according to **professional DIN standards**
- Expanded **20000 ft²** 'Ausbildung' warehouse storage capabilities by **prototyping** a stainless-steel storage unit using **CNC machining**, high precision welding and sheet metal bending techniques

Hatch Ltd | Geotechnical Projects Intern   Niagara Falls, Ontario | *Aug – Sep 2017*

- Developed intranet website using **Microsoft Sharepoint** to streamline **internal project management** and portfolios
- Digitized blueprints of large-scale concrete and spillway systems with **AutoCAD** creating 30 structural templates for future geotechnical projects
- Used **HTML and CSS** to collaborate globally on revitalizing marketing and promotion materials producing 60+ updated project descriptions in-line with, client engagement, marketability

Projects

UofT Biomedical Engineering case study competition, Grand Prize Winner   *May 2019*

- Led a 4-person team in developing an accessibility spoon to prevent harm to children suffering from ultra sensitivity to heat resulting in a **15% increase in stakeholder independence**
- Designed **ISO/CCPSA**-compliant 3D model with a temperature-sensitive elastomer biomaterial using **Autodesk Inventor**
- Applied an iterative engineering design process to implement novel shape-memory polymers into design

Mechatronics Mobility Device, National Bronze medal | Award of Excellence   *September 2016 - May 2018*

- National awards: Entrepreneurial spirit, NRSEF **PEO award** and a bronze medal at the **Canada Wide Science fair**
- Used **AutoCAD** to design and prototype a mechatronics mobility device for debilitated and elderly persons
- **Facilitated consultation** with therapists at Hotel Dieu Shaver hospital to optimize an ergonomic, user-focused design
- Used **Autodesk Inventor** and **FEA simulation** to approximate strains and stresses to evaluate long term feasibility
- Integrated movement assisting capabilities with **Arduino C++,** motor controllers and custom **3D printed components**