Emily **Yang**

Biomedical Engineering

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Skills

Languages: Python, C/C++, C#, Java, JavaScript, HTML, CSS, MATLAB
Tools: React, Node, Bootstrap, Gatsby, Tensorflow, Keras, Git
Programs: SolidWorks, AutoCAD, MicroStation, Arduino, Eagle, 3D Slicer, MeshMixer, MS Office
Design: Illustrator, Adobe XD, InDesign, Photoshop, Cinema 4D

Experience

Product Management Intern
Oct. 2020 - Present

Edify — *Portland, OR*

- Researching **conversational UI** and implementing an AI framework to create a slackbot. Currently developing an **NLP** model in **Python**.
- Working in an interdisciplinary team of data scientists, engineers, and designers while presenting technical solutions to the executive team, customers, stakeholders, and end users.

Chatbot Developer
Mar. 2020 - Sept. 2020

I Ally Inc. — *Union, NJ*

- Programming a chatbot in **Python** that provides immediate assistance to millennial caregivers without access to sufficient resources.
- Analyzing user inquiries to streamline communication of essential information on web and mobile platforms. Decreased wait times by **6 hours**.
- Spearheaded the redesign and optimization of project workflows leading to a **90%** increase in task completion rate.

Biomedical Engineering Associate
May 2020 - Aug. 2020

Niagara Health System — *St. Catharine's, ON*

- Designed and 3D printed non-critical components of medical devices and phantom organs using **SolidWorks, 3D Slicer,** and **MeshMixer**.
- Manufactured **50+** custom rehabilitation devices for stroke patients, quadriplegics, amputees, and patients with muscular dystrophy.
- Collaborated with 7 departments across 5 hospital sites to create low-cost, individualized assistive patient care devices and anatomical models saving approximately **$80,000** in manufacturing costs.
- Researched and presented key information on the applications of 3D printing in healthcare to over 100 professionals at the Canadian Medical and Biological Engineering Society Conference.

Engineering Intern
Jul. 2018 - Aug. 2018

Hatch Ltd. — *Vancouver, BC*

- Generated design ideas for improvements to a test fixture for a port sensor using **AutoCAD** and **MicroStation**.
- Improved design schematics for the Vancouver International Airport and presented findings to the project director, customers, and stakeholders.
- Drove cross-functional project coordination between electrical, mechanical, and civil engineering teams.

Projects

COVID Detection, Machine Learning Image Analysis
Sept. 2020 - Present

- Programming a convolutional neural network in **Python** to detect COVID positive patients from lung x-ray scans. Implementing **Tensorflow** and **Keras** libraries to develop a machine learning algorithm.

Drone Database
Mar. 2020

- Created a database in **C++** to store the information for a drone collection. Performed testing and debugging on searching and sorting functions.

SheHacks - Hack With Heart
Jan. 2020

- Selected from over 200 applicants to create a comprehensive Relay for Life web application using **JavaScript, HTML,** and **CSS**.
- Worked on front-end development, user authentication, and assisted in the design of the user interface. Final prototype reached over 750 users.

Education

University of Waterloo
Sept. 2019 - Jun. 2024

2A Biomedical Engineering, Management Sciences Option — *Waterloo, ON*

- Cumulative GPA: 3.95
- *Relevant Coursework*: Data Structures and Algorithms (C++), Digital Computation (C#), Human Factors in Design

Volunteering

- **A.I. for Anyone**: Researcher and Content Creator for Online Learning Modules
- **Athena Pathways**: A.I. Mentorship Program Volunteer
- **Engineers Without Borders - Waterloo Chapter**: Outreach Team Member