# Harley Zhang

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### Education

University of Waterloo

2024 - 2029

Bachelor's of Applied Sciences, Computer Engineering, Co-op

Waterloo, Ontario

# **Professional Experience**

Yale University

Mar 2021 – Present

Software Engineering Intern

New Haven, Connecticut

Supervisor: W. Lauenroth (william.lauenroth@yale.edu)

- Ran simulation models using Bash and analyzed output data using R to evaluate climate change in Colorado.
- Created and deployed EcoForecast, an online app using Google Earth Engine JavaScript API to display simulation climate change data in drylands in the US for ranchers and land managers.
- Developed a neural network to automatically classify wildlife images for species identification.

University of Toronto May 2023 – Dec 2023

Research Assistant

Toronto, Ontario

Supervisor: M. Cadotte (marc.cadotte@utoronto.ca)

- Classified land uses (e.g. water, grass, forest) in historical aerial images of the city of Toronto.
- Trained a neural network using manually classified images to automatically sort land uses.
- Analyzed the impacts of urbanization in Toronto over the past century based on land use changes and landscape dynamics.

**Kumon Learning Centre** 

Jun 2023 – Sep 2023

Teaching Assistant

Toronto, Ontario

- Taught students aged 3-18 math, reading, writing and provided feedback for educational support.
- Evaluated student performance by grading examinations and tracking improvement by maintaining assessment records.

# Leadership Experience

#### **Harvard Medical School**

Apr 2021 – Present

American Lung Cancer Screening Initiative

Boston, Massachusetts

- Delivered lung cancer screening workshops for health and community organizations in Canada and the US.
- Engaged in outreach efforts to US Senators and Representatives to advocate for bills involving lung cancer education and screening guidelines.
- Worked with local and regional US government leaders to create and distribute public service announcements on local lung cancer screening programs.

## Unionville Future Business Leaders of America (FBLA)

Oct 2020 - Present

President and Founder

Markham, Ontario

- Assembled and led a team of 10 executives and trainers to develop comprehensive training and marketing resources for the chapter.
- Delegated weekly training sessions held by trainers covering topics on business, economics, and finance for over 100 members
- Oversaw member organization and assistance at the Canadian National Leadership Conference.

#### Skills

Languages Technologies Tools JavaScript, HTML/CSS, R, Bash, C/C++/C#, Python

React.js, Tailwind CSS, Google Earth Engine JavaScript API, OpenAI API

Git, Word, Outlook, Excel, PowerPoint, Drive, VS Code, Dropbox