

# TAILAI WANG

COMPUTER SCIENCE AND BUSINESS ADMINISTRATION DOUBLE DEGREE STUDENT

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## TECHNICAL SKILLS

Programming Languages: Python, Swift, C/C++, JavaScript, Java, Scheme, SQL  
Frameworks/Tools: MongoDB, Express.js, React.js, Node.js, GraphQL, AWS, GCP, Git

## EXPERIENCE

### Tile

January 2022 - April 2022

*Software Engineering Intern - iOS Platform*

*San Mateo, California*

- Sped up app build time by **over 20%** by implementing XCFrameworks and compiler optimizations
- Validated characterization algorithms for Ultra Wideband (UWB) Data using **sklearn** and **matplotlib**
- Implemented new app-wide **DynamicType** services to follow **Apple Human Interface Guidelines**
- Improved new architecture framework by migrating views and view controllers from Objective-C to Swift

### Sonova Innovation Lab

Jan 2021 - Apr 2021

*Software Developer Intern - iOS*

*Kitchener, Canada*

- Spearheaded development of Hearing Aids Finder application for iOS
- Used **Core Bluetooth** and **Core Location** through **Swift** to create **3 Bluetooth Proximity features**
- Increased reusability by refactoring **Objective-C** code to implement location-logging triggers
- Streamlined QA process for a **Google Assistant Action** using **Flask**, drastically reducing test time

### Questrade Financial Group

Apr 2020 - Aug 2020

*Production Engineering Intern*

*Toronto, Canada*

- Cut response times by **90%** by automating **company-wide** alerts using **JavaScript** & **G-Suite API**
- Developed HRM app using **MERN** stack, enabling incident simulation training and team analytics
- Performed key data fixes for Business Intelligence on **MySQL** ledgers involving **over 10000** accounts

## LEADERSHIP

### Hack the North - [hackthenorth.com](https://hackthenorth.com)

Hackathon Organization

*Logistics Team Lead (2022-Present)*

- Organizing Logistics for Canada's biggest hackathon, **serving 1500+** participants a year
- Leading 4 organizers to execute judging, workshops, volunteering, and other key deliverables

### Clove - [clove.eco](https://clove.eco)

Entrepreneurship

*Tech Lead (2021-Present)*

- Executed technical development of mission-critical Shopify app plugin using **Node.js** and **Liquid**
- Headed implementation of **3+** **iterations** of pastable code snippet using **Next.js** and **Firebase**
- Advised co-founders on product strategy, ideation, and value proposition throughout initial fundraising

### Laurier Case Team - [lauriercaseteam.ca](https://lauriercaseteam.ca)

Case Competitions

*Assistant Coach (2022-23), Co-Captain (2021-22), Competitor - Digital Strategy (2020-21)*

- Led **50+** **students** on one of Canada's leading undergraduate case teams as academic captain
- Solved and presented case problems in **digitalization**, **tech consulting**, and **business innovation**

## PROJECTS

### MomsOverMatter - [Product Link](#)

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- Developed *MomsOverMatter*, a free medical information tool for depression treatment for new mothers
- Used **PostgreSQL** and the **MERN** stack to implement questionnaire features and web app components
- Created standardized **Express.js** endpoints to export surveys to doctors, **halving administration time**

### Lyricalculus - [Devpost Link](#)

Hack the North 2021

- Led project ideation and design of a web application that evaluates song lyrics using ML and NLP
- Created processing system for **3000+** songs, performing **lexicographic** and **NLP semantic analysis**
- Trained and deployed **scikit-learn** ML model to analyze lyrics at **nearly 80%** accuracy

### To The Moon - [Devpost Link](#)

Hack the North 2020++

- Scraped *r/wallstreetbets* using **PRAW** on **Jupyter Notebook** to aggregate stock discussion posts
- Created data pipeline with **Pandas** and **Dropbase** to create a real-time scraping database
- Developed **Flask API** with **Google Cloud NLP** to make stock picks through market sentiment analysis
- Made **React.js** charts to showcase **almost 50** most bullish/bearish stocks traded on NYSE/NASDAQ

## EDUCATION

### University of Waterloo and Wilfrid Laurier University

Sep 2019 - Present

BCS/BBA Computer Science and Business Administration (Double Degree)

*Waterloo, Canada*

- **Awards:** J. Wesley Graham National Scholarship (2019), Term Dean's Honours List (2020, 2021, 2022)
- **Interests:** Fitness, Sustainability, Global Affairs, Financial Markets, anything that ends with "ball"