Timothy Zheng

Computer Science and Financial Management

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EDUCATION

University of Waterloo   Waterloo, ON

Candidate for Bachelor of Computing and Financial Management   *2021-2026*
- Dean's list - GPA: 3.80 | Cumulative Average: 89.80%
- Clubs and Activities: UW Badminton Club Executive, UW Formula Motorsports Business Section.
- Relevant Coursework: Functional Programming, Algorithm Design & Data Abstraction, Financial Data Analysis.
- Lead the creation of a dynamic finance program that achieved the highest grade (97.5%) & 2nd place in contest.
- International Baccalaureate Diploma and High School Diploma with Honours from St. Robert CHS (2021).

WORK EXPERIENCE

IMOxKids2AI   Jun – Oct 2021

Python Instructor   *Dublin, Ireland (Remote)*
- Instructed a class of six elementary students from Dublin, Ireland virtually from Canada in Python.
- Covered intermediate programming concepts (functions, dictionaries, recursion, search and sorting algorithms).
- Classes delivered weekly over the span of twenty weeks.

COMMUNITY & LEADERSHIP

High School Coding Club   Oct 2020 – Jun 2021

Director of Operations   *Thornhill, ON*
- Managed, instructed and directed a 150-member club of high school students interested in coding.
- Prepared students for the CEMC Canadian Computing Competition in the Junior and Senior stages.
- Co-created original **code** and **instructional material** for the club's own Proof of Work Cryptocurrency.

PROJECTS

Smart Stock Portfolio Generator | *Jupyter Notebook, Pandas, Matplotlib, Numpy, yFinance*   Oct – Nov 2021
- My runner-up course contest submission from CFM 101.
- Quantitatively analyzes live financial data to produce the most volatile portfolio from any list of stock tickers.
- Calculated stock beta, standard deviation, Sharpe ratio, and stock option interest ratios to rank stocks and used Monte Carlo methods to determine optimal portfolio weightings.
- Optimized code execution by threading and caching API calls to our financial data provider, yielding a **20x decrease** in our program's total run time.

DiscardApp | *JavaScript, HTML, Google Firebase, BeautifulSoup4, Google Places API*   Jun 2021
- AtlasHacks II First Place Winner, byteKode Summer 2021 Runner-up.
- Displays the best credit card to use in your wallet by determining where you are shopping using the **Google Places API**.

CheckinWithMe | *Python, Natural Language Processing, AstraDB, Requests, Discord.py*   May 2021
- Mental Health Hacks Hackathon Winner: Best use of Linode Cloud, Best Domain Name from Domain.com.
- A Discord bot that uses **tone/sentiment analysis** to detect and respond to users' moods leading to an increased awareness **about their mental health**.

TECHNICAL SKILLS

Languages: Python, JavaScript, Racket, HTML/CSS, Markdown, LaTeX.
Libraries: Pandas, Matplotlib, yFinance, Flask, ReactJS, MySQL, Bootstrap5, BeautifulSoup4, Google Cloud Platform.
Tools/Applications: Git, GitHub, VS Code, PyCharm, Jupyter Notebook, PuTTY, SSH, Ubuntu, GNU Bash.