

# Dylan Faelker

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## Skills and Abilities

### Technical Skills

- Java, React.js, Racket, Python, Pandas, Javascript, CSS, HTML

## Career Development

### Zero Experience | September 2021 - October 2021

- Investigated major issues that will affect our future in space technologies.
- Brainstormed and **designed solutions** for the problem of the growing amount of space debris.

### Lifeguard | Town of Oakville | September 2018 - August 2021

- **Communicate** with patrons and co-workers to **prevent emergencies** and **perform first aid** for those in danger.
- Maintain the pool's chemical levels and cleanliness to ensure safety of participants.

### Swim Instructor | Town of Oakville | September 2019 - August 2021

- **Organise lesson plans** to ensure enjoyment by swimmers and development of skills.
- **Lead swimming lessons** and evaluate proper swimming technique for children age 0-13.

## Projects

### Stock Portfolio Creator

- Constructed a **data extraction program** which uses Yahoo Finance API to obtain information on stocks.
- Utilised **pandas, numpy and data analytics** in order to produce a portfolio of the most volatile stocks.
- Applied **threading technology** to decrease the runtime of data extraction to 7% of previous run time.

### Infinity Chess and Chess AI

- Implemented a game using **React.js** which extends upon traditional chess by adding a feature where the edges of the board wrap, allowing for an 'infinite' board.
- Created an **InfinityChess AI** capable of evaluating hundreds of positions to make the best move.

### Personal Website

- **Built a website from scratch** using **React.js** incorporating previous software projects.

### FENDecoder

- Developed a program which parses the Forsyth-Edwards Chess notation onto a visual chess board

## Education

### University of Waterloo | September 2021 - April 2026 (Expected)

Candidate for Bachelor of Computer Science and Finance Management

Waterloo, Ontario

Cumulative Average: 90.6%

### Relevant Courses

- Introduction to Financial Markets and Data Analytics , Designing Functional Programs, Elementary Algorithm Design and Data Abstraction

## Achievements

### Academics

- Earned an average of 98.2% in Grade 12
- Placed in the top 25% of the Waterloo Cayley Math Contest 2019

### Running

- Placed 3rd in age group at the 2017 ROAD2HOPE 10 km in Hamilton
- Placed 1st in age group at the 2018 Jungle Run Adventure Run
- Placed 52nd out of 1204 in the 2018 Mississauga Hazel 5 km
- Paced 247th in age group at OFSAA Cross-Country 2018

## Interests

- Running, Biking and Swimming
- Chess