# Felix He

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### SKILLS

Languages: Java, JavaScript, HTML/CSS, Scheme, C++, C, R

Tools: React.js, Node.js, Firebase, Bootstrap, SQLite, Git, Bash, LATEX

### PROJECTS

### Competitive Programming - Java, C++

- Ranked **top 150** with over **350 problems** solved on the DMOJ contest platform, Canada's largest online judge for competitive programming with **over 50,000 users**.
- Placed in the top 30 in more than 5 Canadian contests hosted on the DMOJ contest platform.
- Implemented many different data structures and algorithms, including Balanced Binary Search Trees, Segment Trees, BIT, Kruskal's, Dijkstra's, etc.

### ResqUTech - JavaScript, Firebase, HTML/CSS

- Used Bootstrap, JavaScript/jQuery and HTML/CSS to create a website, connected to a Firebase database to allow victims to check in with their current location.
- Used the **Google Maps API** to show the locations of the victims that were able to check in, allowing others to see where help is required and the urgency of the situation.

#### PDFEdit - Python

- Developed a PDFEditor using **TKinter** to create the user **GUI**.
- Incorporated **PyPDF2** and **DOCX** libraries to simplify conversions of PDF to docx. and docx. to PDF.

#### EarthPornPics - Java

- Created a script to download the top 7-10 images on the Earth Porn subreddit using **Java Swing**, **NET**, and **AWT**.
- Utilized objects such as a **HashSet**, **HttpURLConnection**, and **AttributeSet** to retrieve the HTML data from the page and ensure the uniqueness of images.

## WORK EXPERIENCE

#### **Splinterlands**

Philadelphia, PA, United States of America

Full Stack Developer - Node.js, AJAX/jQuery, DigitalOcean, LAMP

June 2020 - August 2020

- Built a Blockchain Trading Card Market using **Node.js**, **AJAX/jQuery and HTML/CSS** to allow Splinterlands players to buy and sell cards, and view various statistics and market history.
- Hosted and maintained the SplintX website using Agile Methodologies on a DigitalOcean Droplet using a LAMP stack.

#### **Triway Education**

Richmond Hill, ON, Canada May 2017 – August 2018

Math & CS Instructor

• Taught various data structures and algorithms such as BFS and recursion to help prepare over 60 students in 3 classes for the Canadian Computing Competition.

• Held 200+ lessons for classes of 20-30, leading to more than 10 students placing in the top 2% of Canadian Computing Competition Junior competitors.

# ACADEMICS & AWARDS

#### University of Waterloo

Waterloo, ON, Canada Sept 2019 – May 2024

Candidate for Bachelor of Computer Science - GPA:  $3.69\,$ 

 $\bullet$  Euclid Mathematics Contest - Certificate of Distinction Ranked in the top 8% of 22169 contestants.

May 2019

• Canadian Computing Competition - Certificate of Distinction Ranked in the top 8% of 2719 contestants.

March 2019

Relevant Courses: Designing Functional Programs (Advanced Level), Elementary Algorithm Design and Data Abstraction (Advanced Level)