# Frank Chen

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## Technical Skills

**Languages**: C++, Python, Java, Javascript, C, HTML, CSS
**Frameworks/Libraries**: Angular, Node.js, React, MongoDB, Express
**Tools** : Selenium, TestStand, GitKraken, Bitbucket, Jira, Firebase, LaTeX

## Experience

**Software Developer** Jan. 2021 – Apr. 2021
*Curtiss-Wright Defense Solutions* *Ottawa, ON*

- **Reduced testing man-hours by 90%** for a network switch by implementing a **TestStand framework** that runs overnight
- Automatically verified and interacted with web interfaces using **Selenium** and **Python**
- Facilitated transfer of knowledge for other automation projects by creating Confluence tutorial pages on new tools and components implemented
- Helped prototype a homegrown alternative top level testing framework for single board computers using **Python** in order to reduce the stress on TestStand licenses

**Teaching Contractor** May 2020 – Present
*Frank's Math and CS* *Ottawa, ON*

- Created custom 'home school' experiences in math and CS for classes of 4-8 high school students following International Baccalaureate outlines
- Holistic product earns **200%** when compared to private tutors with similar experience and education
- Negotiated contract yields job security and creative freedom in teaching for independent tutors, within the predetermined curriculum outline
- **100% returning clients** by running effective classes, assignments, virtual tests and exams
- Maintained virtual classrooms on Discord and parent-teacher forums on WeChat

**Online Learning Assistant** May 2020 – Aug. 2020
*University of Waterloo* *Waterloo, ON*

- Managed communications with 600+ students to ensure mental and academic wellness during remote learning using automated emails offering regular phone or video appointments with a 4% dedicated engagement rate
- Organized and marketed student life activities

## Projects and Awards

**Fire Identification Rover** | ***Arduino Uno R3, Java***

- Used Arduino Uno R3 to control a mobile camera module navigate a programmable path
- Minimized implementation complexity by researching compatibility of Java classes with existing image processing equations in academia

**Math Equation Solver** | ***React, Python, C++, Flask***

- Created a **React** web application to detect and solve polynomials using Newton's Method
- Designed and optimized algorithm for Newton's method in **C++**

**Competition Math** | ***CMO, COMC, AMC, AIME, Euclid***

- Advanced from the COMC qualifying for the **Canadian Mathematics Olympiad (Top 50 in Canada)**

## Education

**University of Waterloo** Sept. 2019 – Apr. 2024
*Bachelor's of Software Engineering Candidate, (92% Average, 3.97 GPA)* *Waterloo, ON*