Frank Chen

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Education

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

Experience

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

- Eliminated manual testing for a network switch by implementing components of a top level **TestStand framework** that completely automates testing to be run overnight remotely
- Used **Selenium** and **Python** to interact with web interfaces and automatically verify data
- 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 an engagement rate around 4%
- Organized and marketed student life activities

Projects

Frankc.ca | *Angular, Bootstrap, Firebase*

- Created a web application using **Angular** to display my resume and personality

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++**

Technical Skills

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