Lawrence Tsai

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Dear Hiring Manager:

I am beyond excited about applying to work for you! I am currently a fourth-year pursuing a Specialist in Mathematics with Physics applications with minors in Computer Science and Chemistry at the University of Toronto-Trinity College. I am an incoming Software Engineering Intern for Capital One for the summer of 2023 but would like to gain some more experience by working with you this year! In the summer of 2022, I had the opportunity to work as a Software Engineer at **Promise Robotics** for 4 months in utilizing robotics for automated construction. I utilized Python, Django, React, Docker, Machine Learning, and applied Physics as the top intern contributor. I had the opportunity to work with programming the robots directly as well as full stack development and code reviews with the databases and security of our API. Besides that, I am a senior strategy engineer for the Blue Sky Solar Racing Team at the University of Toronto. I conduct solar cell research (optics and bifacial cells), fabricate, and create simulations (Matlab, Python, Parallel Computing & CAD) to optimize the performance and design of a solar car. I am also on the optics team of the UofT Aerospace Team Space System Division where I do numerical analysis (Python) and optical research (grisms and holographic gratings) of our satellite payload. I am also leading a team of 2 to design tests for our optical bench prototype which is going to be part of a hyperspectral imaging CubeSat to measure anthropogenic gas emissions across Ontario, Canada in 2024. Some projects of mine include a webcam diagnostic tool in coordination with Dr. Etienne Benard-Seguin and Jeremy Moreau (University of Calgary) to diagnose strabismus using OpenCV and mediapipe. Another project of mine that I developed was a friend-making webapp called Amigos using Java, Spring Framework, Figma, Thymeleaf, Javascript, CSS, and **HTML** and deployed on **Azure**. I have some skills but more importantly, have an aptitude for learning that I would like to demonstrate to you. I am a well-rounded person that speaks 4 languages, plays 3 instruments, and played 2 varsity sports (wrestling and track).

Overall, I would like to state that:

- -I have the Skills: I am a critical thinker and eager learner with mastery in Python, Java, and MATLAB. I am also currently working towards mastering C and C++ and am working towards a Self Driving Car 4-Course Specialization through the University of Toronto.
- -I have the **Passion:** I spend the bulk of my free time curiously learning on the internet and talking to friends in the field. All part of the fun!
- -I have the **Character:** I am a lighthearted guy. I find pleasure in the connections and conversations in life:)

Sincerely Lawrence (Larry) Tsai (267)-401-2843L.tsai@mail.utoronto.ca