Olivia Cesta

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Technical Skills

- **Languages |** C++, Python, Java, JavaScript, HTML/CSS
- **Tools & Frameworks |** Selenium, Node.js, Git, GoogleTest, Mocha, Chai, React

Experience

Sports Analytics Research Group | Research Assistant Oct 2023 – Present

- Spearheaded the use of an annotation tool for categorizing player actions in NHL game footage, ensuring a smooth process for efficient identification of movements for input into an action-recognition **machine learning model**.
- Developed documentation on **GitLab** to describe the annotation process and played a key role in instructing and guiding team members on the successful setup and use of the annotation tool within a **Conda virtual environment**.
- Utilized **Google Colab** to create informative visualizations in **Python**, by leveraging **Matplotlib** to generate graphs for conference papers and meta-data analyses.

Ford Motor Company of Canada | Manufacturing Software Developer Sep 2023 – Dec 2023

- Designed tests using **gtest** and **gmock** in **C++** to increase code coverage from **0% to 80%**, aligning the code with industry standards and unveiling error-prone methods requiring additional error handling.
- Created end-to-end **multi-threaded server and client code in C++** to rigorously test packet transportation classes, ensuring the seamless functionality of both server-side and client-side libraries.
- Developed a **python script** for automating the verification of manufacturing serial numbers over **secure shell protocol,** streamlining the validation process in factories.
- Analyzed **Wireshark** logs to pinpoint the optimal wait time before packet transmission, and subsequently implemented **C#** code to detect **TCP socket connections** and initiate packet transmission to devices over Ethernet.

ARCX Inc. | Quality Assurance Specialist Jan 2023 – Apr 2023

- Designed and implemented automated test scripts using **JavaScript** and **Selenium** to identify UI flaws and validate functionality, achieving **90% coverage** of required tests prior to deployment.
- Implemented **Selenium Standalone Grid** and **Docker** to parallelize tests, streamlining the testing process and minimizing manual efforts, saving valuable time and resources.
- Established a robust testing framework using **Mocha** and **Chai** and documented test cases in **markdown language**, enabling efficient tracking and management of tests.
- Actively took part in daily software standups, gathered testing requirements, presented potential solutions and communicated technical issues to internal stakeholders.

Projects

Personal Portfolio Website | React (Ongoing) Sep 2022 - Present

- Building a personal portfolio website using **React**, to display previous projects and improve my knowledge of **JavaScript**, **CSS**, and **HTML**.

Education

University of Waterloo | Candidate for BASc. in Systems Design Engineering Sep 2022 – Apr 2027

- President's Scholarship of Distinction | Relevant courses: **Engineering Prototyping & Design Systems and Society**

Awards and Achievements

- **Dr. CC Goldring Cup Award** for exceptional leadership, sportsmanship, and scholarship (out of 150+)
- **Honors Certificate of Bilingual Studies in French Immersion**

Interests

Hockey • Running Half Marathons • Chess • Motorsport • Sports Technology • Medical Technology