

Jason Cala

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Languages: Python, Kotlin, Java, JavaScript/TypeScript, Swift, C, C++, C#, SQL, PHP, HTML/CSS, XML.

Technologies: NextJS, Tailwind, React, NodeJS, FastAPI, AWS, PostgreSQL, Express, Flask, Redis, Git, GraphQL.

AI/ML: Pytorch, OpenCV, Ollama, Langchain, HuggingFace, TensorFlow, NumPy, Pandas, Matplotlib, Seaborn.

Education

Bachelor of Science, Computer Science & Biology. GPA: 3.88 **Sept 2019 - Apr 2025**
University of Windsor – Windsor, ON.

Courses: Data Structures & Algorithmic Design, Java OOP, Biochemistry, C++ Program Design, Genetics.

Positions: Teaching Assistant, LEAD Medallion Scholar, Dean's Honor Roll, Doreen Hughson Beatty Scholarship

International Exchange Year **Sept 2023 - Aug 2024**
International Christian University – Tokyo, Japan.

Experience

ReelData AI – Halifax, NS. May 2022 – Apr 2023

Software Engineer Intern

Full-stack and MLOps development for the ReelAppetite product

- Implemented internal **AWS S3** Python tool allowing for the downloading, archiving and validation of stitched live videos and JSON metadata (**Python, Pandas, Numpy, FFMPEG**).
- Improved functionality of production pellet counting allowing a continued **90%** decrease in feed waste (**Redis, OpenCV**).
- Assisted in development and design of dashboards used by all clients in **5+** countries (**ReactJS, TypeScript, Redux**).
- Maintained and updated **REST APIs** using **Java** and **Spring Boot**, ensuring seamless integration with third-party tech.
- Led development of AI & V7 Darwin Testing Suite with **Pytest**, increasing overall ReelAppetite test coverage by **60%**

SEEDA – Calgary, AB. Jan 2022 – Apr 2022

Mobile Software Developer Intern

Android development for the upcoming SeeRem application.

- Led team of 3 interns to assist development of a newly designed Android app using **Kotlin** and **Android Studio**, contributing to a **50%** growth in codebase size using **open-source APIs**.
- Implemented **Firebase** authentication and **NoSQL** database to ensure workplace data security.

Glendor Inc – Draper, UT. Sept 2021 – Dec 2021

Software Developer Intern

Software development and research into facial recognition and privacy in medical big data.

- Developed a facial recognition algorithm using **Python** and **OpenCV** for defaced MRI images improving previous recognition by **30%** through the use of eigenfaces when model building.
- Built pipeline for rendering, automation and recognition of 3-D Meshes for data analysis using **open-source libraries**.

Research

Vector Institute – Toronto, ON. May 2023 – Aug 2023

Research Intern

ML, Deep Learning and Neuroscience with The Brain and Mind Institute.

- Leveraged **Pytorch** and **neural networks** (SENet50) to create a computational facial memorability prediction model.
- Curated a large dataset of 100k+ images with **StyleGAN** and FFHQ to find our hyperplane using **logistic regression**.

Dr. Barrette-Ng – React development and the updating of legacy Java Web Applets Feb 2021 - Apr 2022

Porter Lab – Cancer research in Peer Mentor Network. Publication: <http://doi.org/10.1002/bmb.21792> Feb 2021 - Apr 2022

ACME Lab – Python data acquisition and automation for optics and spectrometry Jan 2021 - Apr 2021