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experience

Computational Neuroscience Researcher Co-op @ UBC Cembrowski Lab January 2022 - Present

- Leveraging big data and ML techniques to analyze single-cell RNA sequencing data in R, seeking to identify neuron types in the anterior thalamic nuclei that contribute to an unresolved memory circuit (funded by **Biotalent Canada grant**).

Undergraduate Researcher @ UW Neural and Rehabilitation Engineering Lab September 2021 - Present

- Working under Dr. James Tung to research improving exoskeleton fit to maintain skin integrity in the spinal cord injury population (funded by **Waterloo's President's Research Experience Award**).

Software Developer Co-op @ TD Innovation Lab May 2021 - August 2021

- Led the development of a proof-of-concept banking application using Rust, Rocket, HTTP requests, encrypted cookies, HTML forms, and public/private cryptographic signatures (**pending patent review**).
- Prototyped and pitched a student-centered housing search application and a framework to customize banking experiences based on psychologically-researched user profiles, winning **1st place** at both internal kick-off and mid-term hackathons.
- Researched blockchain and NFT infrastructure, markets, and creators, and presented findings to TD's innovation head.

Research Assistant @ Centre for Neurology Studies, HealthTech Connex Inc. Summers 2019, 2020, 2021

- Initiated an independent research project under Dr. Ryan D'Arcy to investigate the rehabilitative benefits of brain stimulation on people affected by neurological disorders, earning **'best project'** out of 20 undergrad students while in high school.
- Scaled project into a full-fledged study by formulating further research questions, reports, and presentations.
- Conducted data collection, analysis, and visualizations on clinical and EEG dataset, drafting literature reviews and preliminary manuscript for this ongoing study (**pending publication**).

projects & involvement

VP Outreach & Software Developer @ UW Blueprint January 2021 - January 2022

- Worked with Richmond Centre for Disability to develop full-stack features to digitize their **1000+ user** storefront and admin workflows using Next.js, GraphQL, and PostgreSQL.
- Led internal branding committees and initiatives to strengthen the organization's "tech for social good" mission.

Founding Member @ reflect. [getreflect.app] November 2019 - Present

- Co-developed a NLP-based website blocker extension that prompts distracted users to reflect on their technology usage, leading to **1.5k+ total installs** and **600+ active users** on Chrome/Firefox within three months of launch.
- Launched an **apprenticeship program** (Sept-Nov 2021) to mentor and train highschool students in coding, design, and product management with a stipend of \$1600 CAD.

Outreach Coordinator @ Open Source COVID 19 Medical Supplies BC April 2020 - April 2021

- Established a centralized network and database of **150+ BC** manufacturers for COVID-19 medical technologies to be mass-produced locally, and is now used at the provincial authority level.
- Organized a mask awareness campaign by outreaching to mask suppliers and receiving 150+ donated reusable masks.

Director of Logistics @ Canadian High Schools Model United Nations April 2019 - April 2020

- Led the organization of this internationally renowned conference for **900+** youth to take action on global issues.
- Secured **\$10k+** in company sponsorships and recruited keynote speakers from the United States Consulate General, UN High Commissioner for Refugees, and the founder of Idle No More (Indigenous environmental justice movement).

education

University of Waterloo | B.A.Sc. in Honours Biomedical Engineering September 2020 - April 2025 (Intended)

- 91.8% cGPA, intended specialization in Neural Engineering.
- Offered **\$35k+** and over **15** post-secondary scholarships and awards.

awards

British Columbia Excellence Scholarship (**Top 50** in Province), Service Above Self Youth Award Finalist (**Top 3** in Region), Jennifer Wadge Memorial Social Justice Award (**Top 4** in Region), U of Waterloo Carl A. Pollock Engineering Entrance Scholarship.