

RACHEL BRODERS

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in <https://www.linkedin.com/in/rachelbroders/>

🔗 <https://github.com/rachelbroders>

SKILLS

Language : C R Python Java JavaScript SQL

HTML/CSS

Frameworks and Libraries: Node.js Tensorflow NumPy

Matplotlib

Tk GUI Toolkit

JavaFX

AJAX/jQuery

Tools: Git PostgreSQL

PROFILE

- Looking for software development or related experience in tech industry
- Experience in designing, developing, implementing and testing software
- Deans Honours List from the College of Physical and Engineering Science
- Mathematics and statistics background

EXPERIENCE

Quantum Intelligence Lab (PIQuIL) Research Position

Perimeter Institute and University of Waterloo

📅 Sept 2020 – Jan 2021

📍 Waterloo, ON

- Design an algorithm to locate the positions of ions in images from a trapped ion quantum simulator
- Employ image processing and statistics methods to design an algorithm with high efficiency
- Organize and clearly document code
- Study machine learning
- Work both independently and collaboratively

Undergraduate Teaching Assistant

University of Guelph

📅 Sept 2019 – Present

📍 Guelph, ON

- Service 10+ first and second year statistics and mathematics courses.
- Help 100+ students develop their own knowledge in course material.
- Support students in completing course assignments and exam preparation.
- Adjust to working with and teaching students in an online environment

NSERC Undergraduate Research Assistant

University of Guelph

📅 May 2019 – Sept 2019

📍 Guelph, ON

- Modify python TkInter code to increase functionality of and add elements to a GUI.
- Created digital elevation models.
- Refined geographical data using QGIS to assess accessibility of city sidewalks.

PROJECTS

Courselink Monitoring Automation Project

Personal Project, Python, Selenium Webdriver, Web Scraping

📅 2020 – Current

- Monitors chat rooms and discussion boards on the University of Guelph's online learning platform - courselink
- Initiates program at the start of a shift and terminates at end of shift
- Creates notification when a new student enters a chat room or a new discussion post is made

SVG Image Webpage

School Project, JavaScript/Node.js/C

📅 Jan 2019 – May 2019

- Created full-stack web application that parsed family tree file(.ged) and visualizes
- Back-end support in **Node.js** and **MySQL**

EDUCATION

University of Guelph

Bachelors of Computer Science Honours

Bachelors of Science Honours

📅 Sep 2017 - Apr 2022

- Computer Science
 - * Software Systems Dev. and Integration
 - * Data Structures, OOP
 - * Algorithms, Databases
- Mathematical Sciences, Statistics Stream
 - * Discrete Structures
 - * Numerical Methods, Linear Algebra
 - * Probability, Linear Regression

AWARDS

University of Guelph Board of Governors Scholarship

📅 Sep 2017 - Apr 2021

Weiner Family Second Year Scholarship

📅 Sep 2018 - Apr 2020

Michele and Maria Vannelli Scholarship

📅 Sep 2018 - Apr 2019

Ted Newton Memorial Scholarship