RACHEL BRODERS

@ rbroders@uoguelph.ca 📞 (+1) 226 505 8038 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
- Fast learner, independent, problem solver
- 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 accuracy
- 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 teaching students in an **online work 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

📅 2020 – Current

- **Automates** logging in and monitoring of math/stats learning centers web pages
- **Scrapes data** from web pages on regular interval
- Creates notification when data indicates a student may require help
- Functionality automatically initiated at the start of shift
- Automatically log off and close all web pages at end of shift

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
  - 1 of 25 highest admission averages
- Weiner Family Scholarship, Sep 2018 - Apr 2020
  - **Highest average** in second and third year in Dept. of Math/Stats
- Michele and Maria Vannelli Scholarship, Sep 2018 - Apr 2019
  - High cumulative average and **demonstrated leadership** in the College of Physical and Engineering Science
- Ted Newton Memorial Scholarship, Sep 2017 - Apr 2018
  - Highest average among first year students in Dept. of Math/Stats