

# Rachael Mohl

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## Work Experience

### UNDERGRADUATE RESEARCH ASSISTANT

UNIVERSITY OF GUELPH

📅 May 2022 – Sept 2022

📍 Guelph, ON

- Worked with PyTorch to implement and fine-tune Long Short-Term Memory and convolutional neural networks
- Implemented algorithms related to path planning, path interpretation, and map generation
- Contributed to master student's academic paper focused on deep learning and novel path planning techniques

### SOFTWARE DEVELOPER

MAGNET FORENSICS

📅 Sept 2021 – Dec 2021

📍 Waterloo, ON

- Developed back-end code using Clojure and front-end code in a React/Redux environment
- Gained experience with unit, functional, end-to-end, BVT, and API testing using tools like Jest, Cypress, and Postman
- Became familiar with management and development tools including JIRA, Git, Gerrit, Jenkins, Kanban, and Slack

### HEALTH INFORMATICS PRACTICUM STUDENT

WOMEN'S COLLEGE HOSPITAL

📅 May 2021 – Aug 2021

📍 Toronto, ON

- Helped vaccination clinic staff with IT issues using technical and problem-solving skills
- Aided supervisor in overseeing the new daily creation of staff accounts on COVax system using Microsoft Excel
- Implemented time-management and organizational skills to follow and manage a busy and variable schedule

## Projects

### RAYTRACING GRAPHICS PROJECT

📅 Mar 2022

- Loads data from a text file that contains positional, colour, and reflectivity information about a light source and at least one sphere
- Raytracing is implemented using HTML, JavaScript, and WebGL to display the described light source and sphere(s) in a 3-D environment with realistic lighting

### SOFTWARE SYSTEMS DEVELOPMENT AND INTEGRATION PROJECT

📅 Nov 2021

- Webpage and server system created using C, HTML/CSS, JavaScript, jQuery, Node.js, and MySQL
- Allows for the upload/download, creation, and editing of GPX files

### PERSONAL WEBSITE

📅 Sept 2021 - Present

- Made with HTML, CSS, and JavaScript
- Access at [rmohl.github.io](https://rmohl.github.io)

## Technical Skills

### LANGUAGES

Python • Java • C • JavaScript • HTML/CSS • React • Bash  
• SQL •  $\text{\LaTeX}$  • ROS • WebGL • R • MATLAB • Assembly

### OPERATING SYSTEMS

Mac OS • Linux • Windows

### DEVELOPMENT TOOLS

GitHub • PyTorch • JIRA • Jenkins • Gerrit • Visual Studio  
• Atom • Figma • Processing • RVIZ • Gazebo

### OTHER SKILLS

AGILE • Microsoft Office • Google Suite • Neural Networks  
• JSON/XML

## Education

### UNIVERSITY OF GUELPH

BCOMP, COMPUTER SCIENCE (CO-OP)

📅 Sept 2019 - Present

📍 Guelph, ON

- Currently maintaining 88% cumulative GPA
- Minor in Linguistics and Mathematics

## Extra-Curricular Involvement

### GUELPH WOMEN IN COMPUTER SCIENCE (GWICS)

📅 Sept 2019 – Present

📍 Guelph, ON

- Member of executive team as Event Manager starting fall 2022
- GWiCS Go CODE Girl Workshop (2021) – presented and demonstrated how to effectively use and implement HTML and CSS and guided young women in creating a simple web page
- Cybersecurity Case Competition (2021) – created and presented slideshow applying knowledge learned throughout the week in event workshops in which professionals outlined the most important aspects of cybersecurity and its use in technology today

### UNIVERSITY OF GUELPH

📅 Sept 2019 – Present

📍 Guelph, ON

- Volunteer at Spring Academic Open House (2022) – talked to future students about my experience at the University of Guelph and gave tours of the university's official Computer Science building, Reynolds

### LANCEBOTICS ROBOTICS TEAM

📅 Sept 2018 – June 2019

📍 Toronto, ON

- Worked as a lead programmer to ensure a collaborative and fun environment on the institution's first all-girls robotics team
- Developed code used in competitions for driver control, autonomous periods, and programming skills using VEX C++
- Updated and improved upon programs under pressuring time constraints and in high-stress environments