

Rachael Mohl

✉ rmohl@uoguelph.ca

🌐 rmohl.github.io 🌐 github.com/rmohl

in linkedin.com/in/rachael-mohl

Work Experience

CLOUD DEVELOPER (CO-OP)

PERIMETER INSTITUTE

📅 May 2023 – Aug 2023

📍 Waterloo, ON

- Altered *Whisper AI* code to create a neural network that accurately transcribes videos uploaded to the Perimeter Institute Recorded Seminar Archive (PIRSA) website
- Used Javascript and Node-RED to implement admin and user middleware security that requires Okta sign-in or Bearer token for validation
- Created Node-RED modules for Apex REST URI and GraphQL query execution

UNDERGRADUATE RESEARCH ASSISTANT (CO-OP)

UNIVERSITY OF GUELPH, SCHOOL OF ENGINEERING

📅 May 2022 – Sept 2022

📍 Guelph, ON

- Worked with PyTorch to model, train, and fine-tune long short-term memory and convolutional neural networks
- Used Python to implement 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 (CO-OP)

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 (CO-OP)

WOMEN'S COLLEGE HOSPITAL

📅 May 2021 – Aug 2021

📍 Toronto, ON

- Used problem-solving skills to help vaccination clinic staff when faced with technical issues on COVax system

Projects

CLOUD DATABASE PROJECT

📅 Feb 2023

- Used Python and Boto3 to implement a user interface that allows for the creation, deletion, and updating of AWS DynamoDB tables

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

Technical Skills

LANGUAGES

Python • Java • C • JavaScript • HTML/CSS • Bash • SQL • \LaTeX • React • R • MATLAB • Assembly

OPERATING SYSTEMS

Mac OS • Windows • Linux

DEVELOPMENT TOOLS/LIBRARIES

GitHub • VS Code • PyTorch • scikit-learn • Keras • NumPy • Pandas • JIRA • Node.js • Jenkins • Gerrit • ROS

OTHER SKILLS

Microsoft Office • Google Suite • AGILE • AWS • Azure • Google Cloud • Neural Networks • JSON/XML • UML

Education

UNIVERSITY OF GUELPH

BACHELOR OF COMPUTING,

COMPUTER SCIENCE (CO-OP)

📅 Sept 2019 – May 2024

📍 Guelph, ON

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

Publications

- Ploeger, Spencer, et al. Investigation of Stochastic Deep Learning Path Planning Methods for Mobile Robots, 2022. Manuscript submitted for publication.

Extra-Curricular Involvement

GUELPH ROBOETHICS CLUB

📅 Sept 2023 – Present

📍 Guelph, ON

- Club co-founder and co-president starting fall 2023
- Co-hosted various events in which experts and club members discussed important topics related to technology and ethics

GUELPH WOMEN IN COMPUTER SCIENCE (GWICS)

📅 Sept 2019 – Present

📍 Guelph, ON

- Club co-president starting fall 2023
- Go Code Girl (2024) – lead workshop in which attendees were guided through the process of creating their first-ever Python program
- Cybersecurity Case Competition (2021) – created and presented slideshow applying knowledge learned throughout the week on the most important aspects of cybersecurity and its use in technology today

UNIVERSITY OF GUELPH

📅 Sept 2019 – Present

📍 Guelph, ON

- Volunteer at March Open House (2024) – represented GWICS and talked to future students about my experience at the University of Guelph