Réna Hajjar

Toronto, Ontario — 21rsh8@queensu.ca — +1 (647) 205-9075 — linkedin.com/in/rena-hajjar

TECHNICAL SKILLS

LANGUAGES

Java: Familiar with OOP concepts: encapsulation, object hierarchies, inheritance
Python: Strong proficiency in writing efficient code; Used for data analytics, deep learning with Tensorflow, and class projects
C: Understanding of relation of C to assembly and machine level code
Additional Languages: Javascript, Typescript, Ruby, SQL, HTML, CSS

Technologies: MATLAB, MySQL, Docker, React, Ruby on Rails, TensorFlow, Git, Command Line Interface, 3D Slicer

EDUCATION

Queen's University, Kingston, Ontario — September 2022 — April 2026
Computer Science BCS with Honours, Specialization in Biomedical Computing — Overall GPA: 3.83/4.00

- Queen's University Excellence Scholarship
- Coursework: Data structures, algorithms, complexity analysis, linear data analysis with MATLAB, digital systems

EXPERIENCE

Undergraduate Student Researcher — Kingston, Ontario
Queen's Lab for Percutaneous Surgery — September 2023 – Ongoing, Part-Time

- Using Pandas to work with surgical video datasets to train AI models for object recognition and tracking of the machinery's space in 3-dimensions
- Attaining end-to-end machine learning knowledge, from data pre-processing to scripting and calibrating, to enhance resident training for common procedures, providing further reach to medical care

Software Engineer Intern — Toronto, Ontario
Readwise — May 2023 - September 2023, Full Time

- Merged over 25 personal pull requests and code-reviewed peer work
- Co-authored the new Notebook feature in Readwise Reader, as well as eliminated bugs in previously written features
- Gained full-stack experience, with a front-end focus on React web development and back-end data migration tasks
- Collaborated with cross-functional teams to learn from and reach common goals to better the company
- Contributed to the global team effort to drive user growth by 8,000 customers during time spent at Readwise

PROJECTS

Injection Administration Tracking - 3^{rd} place winner of NextGen Simulation Hackathon — February $9^{th} - 11^{th}$, 2024

- Developed a metric-based training system for lifelike clinical simulations. Utilizing optical tracking and open-source software, created a visual guidance tool for injections, providing real-time feedback to students
- Using an OptiTrack camera and 3D printed sensors on the needle, metrics were transferred via Plus to 3D Slicer, visualizing movement on a phantom model
- Students were able to visualize the movement of their needle with Slicer transforms, as well as analyze the angle and depth of their injection practice
- An innovative approach which enhances medical education by offering precise insights into needle angles and depths, improving training methods in healthcare settings

FreshSave - QHacks 2024 Submission — February $1^{st} - 4^{th}$, 2024

- Developed an application to combat food waste in Kingston, connecting supermarkets with nonprofits
- Implemented a MongoDB backend for efficient inventory management, and integrated OpenAI's API with Python injections for real-time meal kit creation with food close to expiry
- Designed a user-friendly React frontend for seamless interaction, enabling nonprofits to coordinate same-day pickups
- Executed a 48-hour development sprint, demonstrating resilience and problem-solving
- Presented project goals and impact at a final conference, showcasing expertise in backend development, frontend design, and API integration

Reader Notebook Feature - Readwise Internship Project — July - August 2023

- UI in Reader which allows users to transform their highlights into a separate page to take notes and review key information
- Written in Typescript and Python, combined backend data migration of Kindle Reader with frontend design aspects and functionality