Ayman Kassab

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EDUCATION

- **University of Waterloo** Waterloo, Ontario
  Bachelors of Computer Science, Software Engineering Specialization *May 2018 - April 2022*

- **Course Subjects:**
  Artificial Intelligence, Databases, Algorithms, Data-Structures, Statistics, Linear Algebra, Software Engineering.

EXPERIENCE

- **NERv Technology** Kitchener, Ontario (Remote)
  Software Developer - Intern *Sept 2021 - Dec 2021*
  - Improved backend server security by mitigating DDoS attacks with the Sliding Windows Counter algorithm implemented with C# as middleware on ASP.NET Core 3, resulting in $9000 in yearly savings and 12% reduced in-memory footprint.
  - Implemented a client-driven database migration system using Azure serverless functions, allowing the clinical studies team to manually choose which sensor data to migrate over to a newer database from their tablet.
  - Used a design pattern to re-architect services written in Kotlin in the Clinical Trial team's Android application, cutting down 3000 lines of code.

- **Rocket Doctor** Toronto, Ontario (Remote)
  Software Engineer - Intern *Jan 2021 - April 2021*
  - Architected and implemented an abstract patient-form builder library with built-in 3rd party integrations using Next.js (React.js), Node.js (Express.js), and PostgreSQL.
  - Deployed 5 revenue-generating patient on-boarding forms that saw 54,000 visitors across Canada and the United States measured with Segment API, Google pixel trackers, and Google Tag Manager.
  - Improved app performance by optimizing API endpoints and implementing component memoization and persistent states in React using React Hooks to deliver a smooth and scalable user experience.

- **Stallion Enterprises** Hamilton, Ontario
  Software Developer - Intern *May 2020 - March 2021*
  - Developed, designed and deployed a self-storage booking system using Angular 9, Node.js (Express.js), MySQL, Square API, and GoDaddy.
  - Reduced staff hours by creating recurring scripts with node-cron to charge customers monthly using Square API, warn customers of late payments/termination using Nodemailer, and adjust Google AdWords budget via Google API, saving the company 200+ staff hours.
  - Created an admin portal for controlling recurring scripts using Node.js and Google Sheets API, giving the owner the ability to turn on/off backend business logic when needed.

PROJECTS

- **Drink Quality:** A Neural Network created from scratch with Python to assess drink quality.
- **Atrium CDVI API Tool**: An API wrapper created with Node.js to allow developers to make API calls on a remote storage management website by bypassing their anti-scraping protection using the rc4 decryption algorithm.
- **Social Sports**: An Android application programmed with Kotlin, which uses geolocation to create or join nearby sports events in your local area.

SKILLS

- **Languages**: C#, Python, Kotlin, TypeScript, JavaScript, SQL, HTML, CSS, Bash
- **Tools & Frameworks**: Git, ASP.NET Core 3, Node.js, React, Android Studio, PostgreSQL, Redis, Docker, Azure

ACTIVITIES AND ACCOMPLISHMENTS

- **Undergraduate Student Mentor** - Tech+ UW, Jan 2021 - April 2022
- **GraphQL Workshop Mentor** - Hack the North, Dec 2021
- **Referee** - MYSL Soccer League, May 2019 - Aug 2019