

# Jack Guinane

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## EXPERIENCE

### **Freelance Developer**, 2018–Present

Worked with a range of businesses to develop web & software applications.

- Planned & managed large software projects
- Provided web design, development, and SEO services, resulting in up to a 96% mo/mo increase in traffic

### **Owner/Operator of Painting Service**, 2015–2019

Self-employed painter over the summer months.

- Planned and budgeted projects, up to \$7,000
- Communicated with clients throughout the process
- Managed a team of five

### **App Developer for Etobicoke Iron Works**, 2018

Contract full-stack developer over the the months of May to August.

- Developed architecture of inventory tracking app & database
- Designed UX model, modernizing and streamlining data-input process
- Implemented cross-platform app, resulting in the reduction of lost inventory

### **Teaching Assistant for Queen's School of Computing**, 2018

TA for Prof. Wendy Powley's CISC 121 Intro to Computer Science II class (Queen's University), during the Winter and Fall semesters of 2018.

- Graded programming assignments, proctored midterms
- Held office hours and interacted with students one-on-one
- Taught students programming and programming-best practices

## SELECTED PROJECTS

### **Eye-Tracking OS**, [.../qjack001/Eye-Tracking-OS](https://github.com/qjack001/Eye-Tracking-OS)

The final project for CISC-325 (Human-Computer Interaction), a concept UI designed & developed to leverage eye-gazing as a primary interaction method.

- Utilized & improved upon Webgazer.js to eye-track through standard webcam
- Designed iteratively, conducting user-tests throughout in a team of 5

### **Wherehaus app**, [.../qjack001/Wherehaus](https://github.com/qjack001/Wherehaus)

A cross-platform mobile application commissioned by Etobicoke Ironworks to solve their growing inventory issues. The app allows employees to snap a photo of an item, saving its location and info using Firebase's Realtime Database.

- Gained experience in project management and software architecture
- Developed in a team of 2, over a 4-month schedule

### **Fuzzy Logic Coffee Controller**, [.../qjack001/CISC-467-Implementation](https://github.com/qjack001/CISC-467-Implementation)

A fuzzy logic Javascript framework and expert system for at-home coffee brewing, built for the implementation project of CISC-467 (Fuzzy Logic).

- Built and tested a flexible Mamdani-based fuzzy framework in pure Javascript
- Designed, implemented, and documented an expert system that determines the optimal brewing strategy through 4 output variables
- Provided an in-depth white paper on process and next-steps

## EDUCATION

### **Queen's University**, 2020

Bachelor of Computing (Hons.)

- Specialization in Computer Science
- 3.45 cumulative GPA

## HONOURS

- Dean's List, 2017–2018
- Honour Roll With Distinction
- Ontario Scholar
- Gifted Diploma
- Queen's Excellence Scholarship

## SELECTED CLASSES

- CISC325: Human-Computer Interaction
- CISC235: Data Structures
- CISC322: Software Architecture
- CISC422: Formal Methods in Soft. Eng.
- CISC282: Fund. of Web Development
- CISC467: Fuzzy Logic

## SKILLS

- Experienced in Java, C, JavaScript, Python, Haskell, Prolog, Dart; interested in working with Rust, WebAssembly, & Go
- Deep understanding of Object-Oriented and Functional Programming paradigms
- Extensive knowledge of core front-end web technologies, HTML, CSS, JavaScript, as well as modern accessibility standards
- Familiar with relational databases, MySQL, JSON, and Firebase
- Strong understanding of formal verification using Alloy and NuSMV, static code analysis using Understand
- Proficient with Bash, Git, and system-level programming in general
- Experienced with iterative design processes, prototyping, and user testing
- Certified CPR-B, American Sign Language (level 2B), and Positive Space training