# Tadhg McDonald-Jensen

It is pronounced *Teague* and means ["bard" or "poet" in gaelic](). (It is not Klingon)

# Contact and Online Profiles

- [vcard v4]() (more detailed but probably won't work on your device)
- [my contact card]() (for most devices)
- Email: [tadhgmister@gmail.com]()
- Texts and voicemail: [(343) 655-2007]()
- [Stackoverflow]() top 2% overall by reputation
- [Github]()
- [Instagram]()
- [LinkedIn]()

# Skills

- Write clean, well documented code
- Knowledgeable in: Python, Java, MATLAB, C, HTML, CSS, Typescript, Guile Scheme, Bash, R, Latex, Applescript
- Inquisitive: naturally asks well formulated clarifying questions, ensures correct details of task before starting task, seek out solutions and test theories
- Quick learner who once helped a friend write [Processing Java]() code and had success editing and correcting their code for 2 hours before disclosing I had never used Processing before that session
- Use Linux as primary operating system and am comfortable using terminal for editing code, looking up documentation, compiling code, etc.

# Work Experience

### Developer for Ericsson Indoor Planner ([EIP]())                    2018 to 2019

- Improved efficiency of backend MATLAB radio deployment simulation, reducing the test suite execution time to 60%
- Coordinated 6 programmers in porting hardware cable routing simulations from existing iOS app to web application written in typescript, focusing on separating tasks to maximize parallel development
- Crafted Typescript wrapper functions for React and Redux to enable our team to add typesafety with minimal code writing overhead

### Teaching Assistant at Carleton

- [SYSC 3303](): Real-Time Concurrent Systems                    2022
  - Evaluated student projects written in Java, identified race conditions or other criteria that would break their code and provided suitable feedback for them to fix it
  - [YouTube walkthrough]() of multi-threaded data structure analysis to help students understand how to analyze their code for correctness
- [SYSC 4001](): Operating Systems                    2023
  - Explained core concepts for operating systems including asynchronous interrupts

- ECOR 4995: Professional Practice                                                    2024
    - Provided extensive feedback on submitted essays
    - Regularly replied to student queries about grades and marking processes

## Education

- Masters of Applied Science at Carleton University                           2021 to Now
- Bachelors of Computer Systems Engineering at Carleton University.2016 to 2021
  Graduated with 10.68/12 CGPA

## Interesting things I've done

- Created a clone of the water/ball sort game
- For the 4th year engineering project our team designed a wearable watch to collect biometrics, I wrote the program to offload the data from the device and log / graph it for demonstration.
- Designed circuits in Logisim and made edits to the Java source code to better support using it on an iPad
- Github issues for typescript that I've authored including a viable proposal to one of typescripts longest outstanding limitations
- Contributions to eslint-typescript including an interesting case where the solution was to educate the users instead of "fixing" their code
- Solved an obscure python issue where certain cases error messages would point to very misleading line numbers, the files linked in this page are the codes I wrote to fix the issue; other maintainers used this to fix the problem
- Submitted a python bug report about misleading error messages and had to argue that it was a legitimate issue before it was corrected
- YouTube video of brief overview of different forms of caching (expects a lot of prior knowledge)
- A clock based on getting the current time as a real number of days between 0 and 1 and then representing it in:
    - Dozonal with normal clock display + dozonal cheatsheet
    - Dozonal (base 12) recursively nesting so each block's area directly represents how much time it represents.
    - Decimal (base 10) similarly recursive
- "Scoops" as a unit of volume using base 12 to simplify cooking
- BookSUSAN: animated children's story written for grade 10 english