Matthew O'Donnell

A reliable, motivated, and thoughtful software engineer up for any challenge. Looking to solve hard problems.

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Core Skills

Web Technologies: HTML & CSS, JavaScript, MySQL, Ruby, Ruby on Rails, RSpec, .NET Core, C#
Apple Technologies: Swift, SwiftUI, UIKit, async/await & AsyncAlgorithms, AppIntents, CoreLocation, CoreData, SQLite, CloudKit, StoreKit 2, SwiftTesting, XCTest
Apple Ecosystem Development: App Store Connect, App Review, TestFlight, Xcode & Simulator, Apple's Human Interface Guidelines
Other: Git, GitHub, Agile, Remote Working

Work

Software Engineer at **FreeAgent**, March 2022 - Present

Technical: member of the core workflow team. Develops features in **Ruby on Rails** that meet key business goals. Able to execute at any level of the stack, writing complex **SQL** queries where **ActiveRecord** (Rail's ORM) fails, business logic in **Ruby**, and new front-end components on the front end. We make heavy use of **Turbo** and **Stimulus**. Maintains technical **documentation**.

Leadership: leads on technical projects. Breaks down and sizes work for engineers to execute. Communicates effectively with project stakeholders (I prefer regular meetings, and try to reduce ad-hoc interruptions to engineering effort). Responsible for maintaining **agile culture** in the workflow team, runs standup meetings. Attends technical conferences, writes blog posts, gives talks in engineering forum.

Cloud Software Engineer at **AVAMAE**, December 2019 - March 2022

Technical: member of a small high-performing team building websites to spec for clients. Wrote websites from scratch using **.NET framework** and **.NET core**, complex **SQL** stored procedures and business logic in **C#**. Maintained large **legacy code bases** with hundreds of thousands of users. Shared **on call** responsibilities.

Leadership: lead on higher code quality, test coverage, and **documentation** standards for new apps.

Independent Projects

All my iOS apps are primarily written in **SwiftUI**, and backed by **UIKit** where necessary. My recent apps heavily feature **modern async/await** patterns and are compiled with **Swift 6**. You can read more about my apps on my website: https://andhash39.com.

Timescape: https://apps.apple.com/us/app/timescape-year-planner/id6744339214

A big picture calendar for big picture planning. Built on **EventKit**.

Thought Path: https://apps.apple.com/us/app/thought-path/id6458731090

To capture your thoughts, ideas, and tasks. Features support for Shortcuts via **AppIntents**, items are location tagged used **CoreLocation**. Database is local **SQLite** and backed by **CloudKit**.

Contextable: https://apps.apple.com/us/app/contextable/id1622457817

An app for creating flashcards with context, aimed at language learners. Database is **CoreData**. **Open source** on my GitHub page.

Education

First Class Honours Master's Degree in **Mathematics** from the University of York, 2015-19

I learned to program in C++ and Java for mathematical and financial computation.

For my undergraduate, I co-wrote a paper on the implications of the violation of Bell Inequalities in Quantum Mechanics. For my master's, I studied multi-dimensional Riemannian geometry as it applied to General Relativity.