**JACOB ROLPH**

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<https://jacobrolph98.github.io>

# PROFILE

Long-lasting passion for problem-solving and programming, experience with independent learning and research as a hobby as well as collaboration, communication and delegation as part of my studies. Strong attention to detail to produce functional software with readable, extendable code using a variety of design patterns. Fast learner and eager to ask questions, excited for opportunities to expand my horizons and continue to develop my career in software.

# SKILLS

**Languages**

* C#, Rust, Kotlin, Python, TypeScript
* MySQL, Cypher

**Frameworks**

* React, TensorFlow, Pandas, NumPy, AlpacaPy, Tauri, Bevy

**Tools**

* Visual Studio Code & Community, Android Studio, PyCharm
* Unity, Git

Effective communication to aid in requirement elicitation, conflict resolution & task delegation using AGILE.

Familiarity with object-oriented, data-oriented and functional principles and design patterns.

Test-driven development & Continuous Integration/Development using GitHub Actions.

# Employment & Volunteering history

**Part-Time Carpenter’s Assistant Nov 2021 to Present**

* Communicate effectively to pick up and apply new concepts
* Adhere to schedule and ensure completed work is to standard that satisfies client

**Android Application – Content Delivery Prototype for BreakX Sep 2020 to July 2021**

* Use AGILE methodology to elicit functional requirements and iterate over UI designs
* Document the design, implementation and testing throughout the project
* Implements Google Sign-in, Drive, and PayPal API using Kotlin
* Browse products, apply filters, save and purchase products

**Jiu-Jitsu Committee - Treasurer Sep 2018 to July 2021**

* Manage funds, purchases and budgeting for university Jiu Jitsu club
* Communicate with other committee members to organize sessions & travel to competitions
* As a committee member and senior belt, assist in teaching novices beginner concepts and techniques

# Projects

**Android Application – Proximity Reminder**

* CRUD app for user-defined reminders to trigger notification based on proximity to a location
* Apply skills with problem domain research to find existing comparable solutions
* Clear documentation of functional requirements and design techniques
* Implement Google API for cloud storage & open-source API for map location selection

**Rust Bevy Application – 2D Game**

* Learn exciting new language & open-source framework through interpreting source-code, documentation & getting involved in the community.
* Implement data-driven code using Entity Component System to optimise cache locality & parallelism & improve modularity.

**Group Software Project – Zoo Management System**

* Work as a team to plan, delegate and carry out software development lifecycle to a prototype system
* Elicit multiple clients with opposing interests and come to a satisfactory solution using Agile
* Design and implement a function prototype system to present to clients
* Earned HMGCC award

# EDUCATION & AWARDS

**University of Northampton Sep 2017 to Sep 2021**

Software Engineering (BSc) Honours 2:1

**Duke of York Award March 2017**

**HMGCC Award April 2018**

11 GCSEs – 3 A Levels

# REFERENCES AVAILABLE UPON REQUEST