

# Henry Twist.

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[henrytwist.uk](http://henrytwist.uk) • [github.com/hctwist](https://github.com/hctwist) • [stackoverflow.com/u/10082297](https://stackoverflow.com/u/10082297) • [play.google.com/store/apps/dev?id=9096773876595019672](https://play.google.com/store/apps/dev?id=9096773876595019672)

## TECHNOLOGIES

### PROFICIENT

Kotlin

Android

Java

MATLAB

HTML/CSS

### COMPETENT

C#

R

Firebase

SQLite

UWP

Hilt/Dagger

### FUNDAMENTAL

Git

Fortran 90

JavaScript

## EDUCATION

### Master of Mathematics (First class honours)

University of Bath September 2015 - July 2019

Module highlights:

Scientific Computing • Numerical Linear Algebra • Computer Vision • Numerical Optimisation and Large-Scale Systems • Group Theory • Medical Statistics • Cryptography

Dissertation (First class):

*Optimisation of Neural Network Architecture* - using Bayesian statistics to optimise the structure of artificial neural networks.

### A/AS Levels

Sir John Leman High School 2013 - 2015

A Levels: Mathematics, Further Mathematics, Physics – A\*A\*A\*

AS Levels: French

## PROJECT HIGHLIGHTS

### Ray 2020 – 2021

Kotlin

A weather app intended to demystify weather terminology and promote sun-safety.

- Implemented a scalable architecture drawing inspiration from Clean Architecture
- Efficient use of coroutines and flows to abstract API access
- Dependency injection with Hilt
- Complex aggregation from multiple data sources with caching and graceful error states

### FullCart 2018 - 2021

Kotlin

Java

A simple shopping list app with features to help you keep track of food expiry.

- Released on the Play Store in 2019. A complete redesign has now been released as beta
- Data storage in SQLite with Room, soon to include sharing capabilities with Firebase
- Initially written in Java, now almost completely redone in Kotlin

### Acquiesce 2021

C#

Two-way file synchronisation software. Designed to be used with multiple clients and a NAS device.

- Learnt C# and worked with the Universal Windows Platform and Fluent Design
- Developed a two-way file synchronisation algorithm, intended to be mostly autonomous

### PhysIt 2014 - 2017

Java

Physics formula solving app. First real project intended for release into production.

- Introductory experience with the Android platform
- Created as a showcase for the initial Material Design specification
- Successfully implemented the shunting-yard algorithm with Reverse Polish Notation

Also undertaken a variety of freelance web design projects, the first in 2014 to help complete the National Cipher Challenge.

## OTHER INTERESTS

UI/UX Design • Tennis • Mixology • Cooking • Running • Chess • PC Building

Intermediate in French and currently learning Spanish.