

ANDREW EMERSON

Senior Software Engineer

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Profile

I am product focussed engineer with five years' experience developing for Android, three of which have been at Skyscanner rolling out features as experiments at scale. Prior to switching careers to Engineering, I gained valuable experience delivering enterprise software projects as a Consultant at Accenture.

I thrive in environments where continual learning and development of myself and others is encouraged. Test coverage is crucial to a successful and sustainable product and I enjoy the test-driven approach to structuring code. I instinctively connect people within and across disciplines such that those around me commit to each other and the decisions taken.

I am seeking positions as an Android Engineer where my experience of working at scale and across functions will influence the technical and business success of the products I deliver.

Skills Range

Kotlin | Java 11 | RxJava | Dagger | TDD | Junit | Mockito | Espresso | iOS (Objective-C & Swift)

Work History

Senior Software Engineer (Android) - Skyscanner

July 2019 – Present

Owns the delivery of large app features, influences the design of their supporting backend services. Applies strong understanding of the engineering considerations in taking a product or feature from MVP to one which scales to millions of monthly app users.

Highlights

- Took ownership over delivery of a new screen to the Android app which marks the beginning of flight purchase eCommerce features such as pre-checkout product customisation. Integrated with a Backend-for-Frontend (BFF) REST service using a Clean architecture and MVVM design pattern with Android Architecture components at the presentation layer.
- Android technical lead for the team responsible for Android flight search. Onboarded / coached 3 other Android engineers and set the technical direction for the Android engineers.
- Upskilled in multiple systems outside of the Android code base such as a Java Dropwizard BFF, Kafka metric processing systems and Samza stream processing. Used this understanding to improve the monitoring of the team's product reliability by implementing reliable metrics and their related dashboards / alerts.

Software Engineer 2 (Android) - Skyscanner

January 2018 – June 2019

Transitioned from delivering small iOS features to collaborating on larger features and technical improvements to Skyscanner's Android app Flight Search and Explore features. Influenced product experiments, technical direction of dependent back end systems and coached other members of the Apps engineering team.

Highlights:

- Planned a programme of technical work to modernise the Android app's data / networking layer responsible for retrieving flight prices. This area of the code base had significant levels of tech debt and sparse test coverage. Addressed it by facilitating white boarding sessions for a new design, influenced thin slicing of work to be done and successfully made the case for inclusion of A/B experimentation gates to ensure no harm was done to such a crucial part of the app.
- Switched focus back to Android development and to the joy of learning new technologies including Kotlin and RxJava. Applied these skills to a redesign of a part of Skyscanner's Explore destinations feed which was exclusively written in Kotlin and successfully combined and choreographed a number of RxJava streams to deliver a performant and enjoyable customer experience.
- Frequently took opportunities to share knowledge and help technical and non-technical colleagues. With technical people, spent time onboarding them to new codebases, providing detailed feedback on pull requests and introducing new concepts to them. Assisted customer service colleagues with understanding product outages at scale.

Software Engineer (iOS and Android) - Skyscanner

February 2017 – December 2017

Mobile software engineer working within a team delivering inspirational mobile experiences to customers in Skyscanner's "Explore" tab on their apps. Hired based on Android development experience but jumped at the learning opportunity of contributing iOS features for a temporary period to help with Skyscanner's iOS-first mobile strategy at the time.

Highlights:

- Rapidly upskilled in iOS development using Objective-C and Swift within 2 months to meet urgent business shortage. Collaborated with colleagues to complement independent learning of the iOS fundamentals. As a result, in a 6-month period delivered a number of iOS features including the iOS proof of concept for inline native Ad units which went on to become an important revenue pillar for Skyscanner.
- Drove technical and delivery discussions for the creation of a new screen on the iOS app. Ensured engineers were aligned on technical architecture by organising and running white boarding sessions. Made sure working practices such as test-driven design, code pairing / mobbing were established for the duration of the project.

Released *Just Show Me It* for Android

December 2014 – December 2016

Identified an opportunity to improve the way in which people share tweets and websites on social media and private messages through automatic creation of screenshots. Built on Computer Science degree fundamentals and Java experience to independently to solve this use case with an Android app and supporting web application deployed on Amazon EC2.

Highlights:

- Learned the fundamentals of Android development such as how its components interact, how they are coordinated and how to write performant code for resource-constrained hardware and operating systems.
- Gained valuable experience of what it takes to build an end-to-end system consisting of an app and a back-end service.
- Developed the investigation skills and perseverance required to track down and fix a number of bugs such as CPU drains by making use of the profiling tools within the Android SDK.

Career Break: Arranging relocation from UK to Vietnam (self and partner)

May 2014 – November 2014

Handled the logistics and administration of relocating from the UK to Vietnam for partner's overseas job posting as well as taking some long-overdue time out to explore the fascinating sights, sounds and tastes of a vibrant new country.

Technology Consultant – Accenture UK

October 2007 – April 2014

Technology Consultant primarily focused on large enterprise integration projects for a number of Accenture's clients in a range of industries. Maintained client relationships, coordinated the work of remote delivery teams, managed project risks and communicated requirements with business and engineering teams.

Highlights:

- Became an expert at translating between the worlds of business and technology at all levels. Communicated technical issues and constraints to client business leaders in an easy-to-understand manner. Took real-world requirements from clients and ensured they were translated into feasible technical solutions for developers.
- At a large pharmaceutical company client, brought together multiple disagreeing parties to debate and then agree on an approach to the project data architecture which had been deferred due to the disagreements. Through a number of workshops and a talent for mediating in a calm way, a solution was agreed and a costly delay to the project was avoided.
- Developed a real-world understanding of the conflict between product velocity and technical debt. At a FMCG client, produced an analysis which quantified the risks of building on top of a custom legacy integration architecture. The analysis ultimately lead to Accenture winning a 500m EUR sale to help pay down the technical debt.

Education

The University of Edinburgh: BSc. (Hons.) Computer Science – 2:1

October 2002 – July 2007

- Focused on the theoretical fundamentals of Computer Science including algorithms, relational databases, computer architectures, and networking. Grew competence in Java through course work and final project implementation.
- Attained First class score for final year Java project which simulated a peer-to-peer network protocol in order to analyse, evaluate and reproduce the computational performance claims made in the network authors' academic paper.
- Completed Internship as Software Engineer at Agilent Technologies, building automated product testing frameworks.

Interests and hobbies

- I enjoy getting involved in any kind of physical pursuit including running, hiking, skiing and swimming.
- As an enthusiast photographer, I love getting lost in the creative process and taking pride in the results.
- An eclectic taste in music; a regular at gigs throughout the year and at a handful of festivals during the summer.

References – available on request