

# Martin Carolan

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## Commercial Experience



JUNE 2014 - PRESENT

### Senior Software Engineer

ITV, London

- Lead developer on the Content Delivery team, who are responsible for building a commercially enticing pipeline to get ITV's media/metadata to the right place, at the right time, in the correct format.
- The system is powered by a collection of Scala micro-services, which primarily communicate by asynchronous messaging (with RabbitMQ).
- Experience with running production services on a hybrid platform, primarily based in Amazon AWS, with integration between on-premise systems for media archival and processing.
- I promote use of functional programming principles wherever possible, and am an advocate of the TypeLevel stack.
- Line management of 3 developers and a QA Engineer. Experience in recruitment leadership of cross-functional teams.
- Helped the team to open-source bucky, an AMQP library written in Scala.



DECEMBER 2012 - JUNE 2014

### Data Engineer

Mind Candy, London

- Built shared services to capture data, enabling insight and integration across all Mind Candy games. Helped to build:
  - an eventing system to capture and interpret millions of events every day
  - an A/B Testing system, which helped optimise the features of Mind Candy games
  - an identity system, allowing users to have a common experience across multiple products, platforms and authentication methods
  - a notification system which allowed the business to send notifications in bulk to users with specific characteristicsAll of our systems were built with Scala, and we were heavy users of Amazon AWS.
- I joined Mind Candy as a Software Engineer on the Payments team, who were responsible for integrating Moshi Monsters with external Payment, Subscriptions, and Game Time Card providers.
- When I joined the Payments team, the architecture consisted of a monolith which was proving to be a bottleneck. As new work came in we managed to slice the backend system into a few smaller, more cohesive, Scala micro-services and migrated our frontend on to a new company wide web platform which used Node.js.



JULY 2010 - DECEMBER 2012

### Associate Software Engineer

Morgan Stanley, London

- My role primarily focused on the development of a real-time bidding/analytics system, in which I conducted both back-end (Java/C++) development, and front-end (C#/WPF, HTML5/Ext JS4) development.
- I joined through the intensive Morgan Stanley Technology Analyst Programme. We received comprehensive 15 week training on Unix, C++, Java, C#, relational database systems, web development, Perl and Python along with presentation skills, project management and other professional development training.
- I also undertook support development on systems/models written in a variety of languages (C++, Perl, Java, C#), to ensure our trading desks had all the tools needed to operate successfully.



SUMMER 2008

### Analyst Software Engineer

Morgan Stanley, London

- On this internship I worked within the Securitised Products Group at Morgan Stanley, rewriting a legacy client-facing investor report web portal in ASP.NET/C#
- I also worked on a House Price Information indexer written in Java, and provided the infrastructure surrounding a new County Court Judgement feed for use in analytical models.

## Education

### BSc Computer Science

2010 FIRST CLASS WITH HONOURS  
University of Durham

### A Level

2007 HISTORY: A, BIOLOGY: B, ICT: B  
Fallibroome High School

### GCSE

2005 7 A's (INCL. ENGLISH, MATHS, DOUBLE SCIENCE) 3 B's.  
Fallibroome High School

## Conference Talks

### flatMappy bird: functional flappy bird

2016 AN OVERVIEW OF FUNCTIONAL REACTIVE PROGRAMMING, IN PARTICULAR COROUTINES.  
Scala eXchange

## Awards

### Scott Logic Award first prize

2009 University of Durham

### Morgan Stanley prize

2008 University of Durham

### BCS prize for academic achievement

2007 University of Durham