

# Martin Carolan

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## Commercial Experience



**JULY 2017 - PRESENT**

Director & Consultant - *Type Systems*, Brighton

- Underscore Consulting LLP (November 2017 - March 2018)
  - Scala development on a project in which we automated parts of a complex business workflow for a client that performs reference checks
  - We delivered huge efficiencies and value for the client, and built maintainable, reliable automation through the use of functional programming principles.
- HMRC (July 2017 - November 2017)
  - Team leadership and Scala development on a new team building a product with complex technical requirements



**JUNE 2014 - JULY 2017**

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 managing production services on a hybrid platform, primarily based in Amazon AWS, with integration between COTS 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 developer in test. Experience in recruitment and leadership of cross-functional teams.
- Helped the team to build and open-source [Bucky](#), an AMQP library written in Scala.



**DECEMBER 2012 - JUNE 2014**

Software 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 characteristics
- All of our systems were built with Scala, and we were heavy users of Amazon AWS.

**Morgan Stanley**

**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.

**Morgan Stanley**

**SUMMER 2008**

Analyst Software Engineer - *Morgan Stanley*, London

- On this internship I worked within the Securitized Products Group at Morgan Stanley, rewriting a legacy client-facing investor report web portal in ASP.NET/C#.

## 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*