

# CURRICULUM VITAE - DR. SAMUEL ZALIN-MILLER

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## Employment

Mar 2020 - Present **Squad Lead, Senior Software Developer (MindBridge, Remote)**

Having integrated some of the Brevis reporting capabilities into the MindBridge app, I am now the lead for the Audit Admin squad within the Ingestion team implementing features as a senior full stack software developer. I primarily work with Java and Javascript.

Sept 2016 - Feb 2020 **Co-founder, Chief Technology Officer (Brevis, Remote)**

Co-founder of Brevis, a Fintech startup which produced smart software for accounts production. I was responsible for overall direction and development of the software. In February 2020 we sold Brevis to MindBridge.

Sept 2014 - July 2019 **Software Engineer (Cyberscience, Hoddesdon)**

I primarily worked on their business intelligence software Cyberquery, for both Windows and the web. On a day to day basis, I programmed in a variety of programming languages including C/C++, Java, and JavaScript.

Jan 2014 - Aug 2014 **Research Fellow (Energy Systems and Services, BAE Systems, Portsmouth & Agents Interaction, and Complexity Research Group, University of Southampton)**

I was contracted to BAE Systems, on a full time basis from the University of Southampton, with the aim of transferring research from academia to industry.

Feb 2013 - April 2013 **Research Scientist (Internship: Advanced Technology Centre, BAE Systems, Bristol)**

I designed and implemented a highly parallel Hadoop program (in Java) for optimising a parametric model used to predict the stress experienced at various locations on Eurofighter Typhoons.

July 2010 - Sept 2010  
July 2009 - Sept 2009  
July 2008 - Sept 2008 **Research Project Programmer (3 internships: Intelligence, Agents, Multimedia Research Group, University of Southampton)**

During my three consecutive summers, I implemented a number of websites in processing.js and php, which displayed energy information associated with buildings within the University of Southampton. I designed, implemented, and tested graphical viewers to demonstrate various intelligent algorithms. I implemented a 3D viewer for simulating disaster management using Java3D.

## Education

Oct 2010 - Jan 2014 Agents, Interaction, and Complexity (AIC) Research Group, University of Southampton

PhD **Multi-agent based techniques for coordination of electricity generation in a micro-grid.**

I investigated how multi-agent message passing techniques could be applied to manage micro-grids by coordinating electricity generator power outputs.

Oct 2006 - June 2010 University of Southampton

Degree **First Class Honours in Computer Science with Artificial Intelligence (MEng)**

My time spent at Southampton allowed me to specialise in artificial intelligence and its applications. I used advanced machine learning techniques, multi-agent based computing, genetic algorithms, and a variety of programming languages including Java and C/C++ to solve a range of problems.

Dissertation                      Researching and Implementing a Computer Agent to Play Arimaa

I received a first class mark for my dissertation which was concerned with creating a computer agent, written in C/C++, to play the board game Arimaa; a game specifically designed to be very difficult for computers to play.

Awards for Outstanding Performance                      Atmel Prize 2010, Netcraft Prize 2009, Zepler Scholarship 2009

Sept 2004 - July 2006                      Hills Road Sixth Form College, Cambridge

A-Levels: Maths (A), Computing (B), Physics (B)                      AS-Levels: Further Maths (C)

## Publications

**S. Miller, S. D. Ramchurn, and A. Rogers, "Optimal Decentralised Dispatch of Embedded Generation in the Smart Grid," in *Proc. of the 11<sup>th</sup> AAMAS*, Valencia, Spain, 2012.**

## Technical Skills

Very Experienced	JavaScript (Node, Angular), HTML, CSS (Less, Sass)
Experienced	Java (Spring Boot), MongoDB, Shell scripts (bash), JavaScript (Webpack, jQuery, Grunt), Pug, AWS
Competent	C/C++, Python (Tensorflow)

## Interests and Experience

- Examples of some of my programming work are available at <https://samzm.dev/portfolio>
- **Managed the full technology stack for Brevis.** Secured the Ubuntu servers running in AWS, implemented the connections between the web server, database, and machine learning server, and developed a continuous delivery system so that new features could be tested in a production environment before being released to customers.
- Implemented a website for my wedding, including a form for guests to RSVP with.
- Have run various Raspberry Pi servers at home (including my personal website).
- Keen rock climber at various indoor climbing walls and some outdoor locations.
- Taught Java, C/C++ and C# to University of Southampton undergraduates during my PhD.
- **Cuban salsa choreographer and performer for PureDance 2013 and 2014 performing arts societies' show at the University of Southampton.**
- President and social secretary of the University of Southampton Circus Society. I taught poi, and also dabbled with diabolo, staff spinning, and fire breathing.
- Involved with music and drama during my school and college years (barbershop group, choir (soloist), brass band, wind band, acted in various plays, grades 1 to 5 for associated board trumpet exams and grade 5 music theory).

**References available upon request**