

## Blaine Malone

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### Employment History

**Senior Software Engineer, [Trustology](#) (TrustVault Custody) (January 2018 - October 2019) UK, London**

- First non-founding member to join. Watched the team grow from 4 to 25 people.
- Lead an engineering team while designing components of Trustologys system architecture. Delivered core features for Trustology including [Bitcoin, Ethereum and ERC20 support](#).
- Integrated a cloud infrastructure solution with programmable hardware security modules (HSMs) stored in a data center. These were responsible for the management and safekeeping of a large sum of crypto-assets. Delivered [subsecond cryptographic signing](#) (approx. 200ms).
- Developed a custom functionality module (15,000 lines of code) that was signed and executed on load balanced HSMs.
- Played an integral part in designing Trustology's CI/CD processes.

**Software Engineer, Deloitte Digital (August 2015 - September 2016)**

**UK, London**

- Core developer for [Deloitte's SmartIdentity Blockchain application](#). A novel way of managing identity and KYC for banks. Presented to early research on Blockchain to Belfast office in 2015.
- Worked with client, National Australia Bank on an [intelligent banking application called 'B'](#) approx. 100,000 downloads on Android/iOS.
- Part of an agile software development team engineering backend microservices for clients to consume.
- Completed British Computing Society certification examinations.

**Computer Science Tutor, Queen's University (September 2016 - June 2017)**

**UK, Belfast**

- Mentored and tutored 1st and 2nd year Computer Science students. Paid employment for top achieving students in final year.

### Volunteer Work

**Ethereum StackExchange Community Support (March 2016 - Present)**

**Remote**

- [Top 10% of contributors to Ethereum based questions](#). Helping ~67,000 accounts with my answers and recommendations.

**Contributing to 'Mastering Bitcoin' by Andreas M. Antonopoulos (Present)**

**Remote**

- Asked to make additions to groundbreaking book, Mastering Bitcoin (O'Reilly Media), widely considered to be the best technical guide ever written about the technology based on a [Medium article](#) I released, July 2019. Currently in the process of making changes to an open pull request to the repo.

### Side Projects and Blogs

- [Bitcoin in Production: Third-Party Dependency Disease](#), (Medium) September 2019
- [HD Wallets: Why Hardened Derivation Matters?](#), (Medium) July 2019
- [Cryptography, Symmetric and Asymmetric](#): Implemented RSA and S-DES Algorithms in Java.
- Implemented Abstract Syntax Notation One (DER) in TypeScript. Allowing me to encode and decode JSON data in a deterministic way for creating data digests and sending data over a network.
- Bitcoin and Cryptocurrency, September 2017, enrolled on Princeton Course via coursera.com.
- [Personal Website](#), initially hosted on a Raspberry Pi, now hosted on Amazon Web Services.
- [Multiprocessor Programming](#), Concurrent data structures of varying efficiency implemented in Java, see [Github projects](#).
- [Hosting a Public Web Server from Home](#), August 2017

### University Education

**Queen's University, 1<sup>st</sup> Class BA in Computer Science (September 2013 – June 2017)**

**UK, Belfast**

- Wrote Dissertation detailing an 'Evaluation of Migrating to Decentralised Applications using Blockchain Technology'.
- Build a [system called 'Unilog'](#) allowing recruitment agencies to cryptographically verify candidates resumes against Ethereum Blockchain.

## **Technology Summary**

- Extensive experience in TypeScript, JavaScript, Java, C, Bitcoin/Ethereum, Algorithms, Concurrent Programs
- Additional experience of Go, C, SQL, AWS, AWS CDK, Terraform, Swift, PROLOG

## **School Education**

### ***St Paul's High School, Bessbrook (September 2006 – July 2013)***

- **A Levels:** Chemistry (A), Biology (A), Information Communication Technology (A), (Also attended non-certified Engineering classes in my own time)