**Blaine Malone**

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**Employment History**

***Senior Software Engineer,*** [***Trustology***](https://trustology.io/) ***(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.](https://apps.apple.com/gb/app/apple-store/id1455959680?mt=8)
* 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](https://trustology.io/individual-accounts/) (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 [Deloittes SmartIdentity Blockchain application](https://www.deloitte.co.uk/smartid/). 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’](https://apps.apple.com/gb/app/b-manage-your-money/id1051351437) 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](https://ethereum.stackexchange.com/users/1186/malone). 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](https://medium.com/@blainemalone01/hd-wallets-why-hardened-derivation-matters-89efcdc71671?source=friends_link&sk=0c21a6800395342a8e206ff710dc6e7d) 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](https://medium.com/@blainemalone01/bitcoin-in-production-third-party-dependency-disease-e159bacecc91?source=friends_link&sk=5af2ec2e006da5c072ff8b4a4ec0e153), (Medium) September 2019
* [HD Wallets: Why Hardened Derivation Matters?](https://medium.com/@blainemalone01/hd-wallets-why-hardened-derivation-matters-89efcdc71671?source=friends_link&sk=0c21a6800395342a8e206ff710dc6e7d), (Medium) July 2019
* [Cryptography, Symmetric and Asymmetric](https://github.com/blmalone/Cryptography-and-Secure-Client-Server): 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](http://www.blainemalone.com/), initially hosted on a Raspberry Pi, now hosted on Amazon Web Services.
* [Multiprocessor Programming](https://github.com/blmalone/Multiprocessor-Programming), Concurrent data structures of varying efficiency implemented in Java, *see Github projects.*
* [Hosting a Public Web Server from Home](http://www.blainemalone.com/blogs/03_08_17.html), August 2017

**University Education**

***Queen’s University, 1st 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’](https://github.com/blmalone/Blockchain-Academic-Verification-Service) 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)