

# Oliver Baxandall

Software Engineer, Garrison Technology Limited, London

Experienced in full stack development, continuous integration of software projects and finding things to do. Working in numerous roles of this nature has promoted a deep love of coffee, a fascination for anything to do with technology and a DIY attitude. An active individual maintaining balance with an assortment of hobbies, including work as a professional magician, 3D-printing of designed CAD projects and rock climbing.

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## EDUCATION

### BSc Natural Sciences - Computer Science and Economics

Durham University - 1st Class Degree

09/2016 - 06/2019

- Cryptography, V&A Reality, Game Theory, AI, Advanced Algorithms, Hardware Acceleration, Information Theory and Procedural Generation.
- Social Secretary for the frisbee team, responsible for organising external events and maintaining high spirits during and between games.
- President of Durham University Dodgeball Team, organising weekly training sessions and competitive games to introduce people to the game.
- Winner of Most Ambitious Hack and Best Use of Google Cloud Platform at Durhack2019 for producing an automatic, parameter-based running routes.
- Received the 2019 Natural Sciences award for Outstanding Achievement,

### A-level Qualifications

Colchester Royal Grammar School

09/2014 - 06/2016

- 5-A\* and 2-A grades, including Mathematics, Economics, Biology & Physics.
- Financial Director of the Young Enterprise Company 'Tangent'.

## EXPERIENCE

### Platform Engineer, Solution Management

Garrison Technology Limited

08/2020 - Present

Waterloo, London

- Lead integration and System design of AWS into existing systems for automated cloud operations. Work on the cloud-based solution ULTRA, facilitating Security reviews and access to previously inaccessible user-logs.
- Docker for automated testing of pipeline deployments. Incorporation into virtual appliances for controlled linux-based package upgrades between releases, expediting fluid correction of security concerns when using third-party/open-source software for entirely virtual integration tests.
- Created and manage a developer UNIX environment through dotfile installation, allowing developer consistency, with anonymous cloud bundling, used by devops and ~40% of engineers for their Linux environments.
- Responsible for code reviews, story boarding features from creation into release and maintenance of existing platform projects. This results in customer facing deployments, with ownership of the modules integration.

### Disruptive Cyber Security Researcher

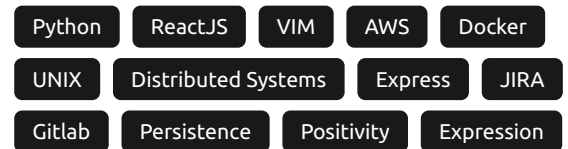
BT Research and Innovation, Emerging Security Paradigms

06/2018 - 08/2020

Adastral Park, Ipswich

- Blockchain analytics, incorporating Apache Spark machine learning and Scala to analyse and classify complex data sets, automated in Jupyter notebooks.
- Nova - conception and development of a polymorphic blockchain, web-based visualisation tool for forensics, maintenance and deployment of blockchain based applications. Full stack development project using NodeJS frontend, Flask API and Postgres database integration for custom exploration between blockchains, previously incongruous structures.
- Regularly lectured to High School and Universities for National Science schemes on a monthly basis. Topics range from Cyber Security, Distributed Systems and Computer Science basics, for small classes or whole year groups.
- Owner of patents encapsulating VR, continuous authentication, layer-mapping and machine-user display, contributing to the BT Security portfolio.

## SKILLS



## REPORTS

The Key Determinants in the Price of Bitcoin: a Story in Speculation (06/2017 - 07/2018)

- Sponsored publication by the Laidlaw Leadership Scholarship Program at Durham University.
- Connected social trend data with volatility, concluding valuation dependencies and vulnerabilities of Bitcoin, uniquely modelling the quantitative price movements.

Automated Assessment of Procedurally Generated Graphical Level Content (06/2017 - 04/2018)

- Researching techniques for systematic random generation in C++ and Blueprint in the Unreal Engine.
- Spawns original material for game engines followed by an integrated AI for evaluating and altering the final user-experience or developer environment.
- Applied to on-demand production of game material, a development tool for professionals wishing to experiment with game mechanics and in education as an introductory game development environment.

Simulation of Malware Propagation and Effects in Connected and Autonomous Vehicles (02/2020 - 08/2020)

- Report generated after research contributing to the ResiCAV Autonomous vehicle project, while part of BT.
- Mobius - Development culminated into a layer-based mapping tool/application, originally used for simulation of malware in autonomous vehicles using SUMO.
- Founding and maintaining developer of the product, deployed into various applications within the company, such as tracking of COVID contacts and 5G mast arson investigations, with visualisation options for time, location and properties.
- Shortlisted for CogX 2020 AI Product of the Year and winner of E&T's Excellence in Cyber Security Award.

## ACHIEVEMENTS

Competed in UK National chess Finals (2006 - 2009)

Qualified Rookie Life Guard (2015)

Shortlisted for UK Ninja Warrior (2017)

## INTERESTS

