

Kieran Alexander Gibb

Software Engineer

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Projects and Appointments

- > Systems Architect & Software Engineer 2019 – 2020
CoBox Co-operative Cloud Brighton, East Sussex
 - Privacy-by-design, distributed ledger and p2p stack to seed decentralised cloud computing infrastructure
 - Secured the full 150,000 EUR accelerator funding from NGI LEDGER Horizon 2020 programme
 - Build, deployment and maintenance of open ARM64 devices
 - Cutting edge research and user-centered design integration into development processes
 - Packaging for cross-platform native application deployment
 - Pro git and nodejs dependency management taking a modular approach

- > Software Engineer 2017 - 2019
Dark Crystal Brighton, East Sussex
 - Leading a 6-person distributed FOSS R&D team spread across 5 countries and time-zones
 - Innovating with p2p and distributed ledger technology stacks (Dat, Scuttlebutt)
 - Design and development of [Dark Crystal](#)
 - Elliptic curve cryptography using libsodium and Shamir's Secret Shares
 - Integration of into two major client Electron applications: Patchwork and Patchbay

- > Director & Engineer 2017 - 2019
Ten Thousand Things Ltd. Brighton, East Sussex
 - Contract software development work for SMEs, co-operatives and start-ups
 - Scalable RESTful web APIs in Node, Ruby and Rust
 - Dynamic JavaScript front-ends with React, Mutant, CycleJS

- > Software Developer 2018 – 2019
Charanga Ltd. Brighton, East Sussex
 - Full-stack application over a 4 month period
 - Normalisation of large datasets and relational mapping
 - Administration dashboard and data visualisation for Lancashire Music Hub
 - Webpack, React, Redux, ECMAScript (ES6) and a Rails web API

- > Software Developer 2017
breatheHR Southwater, East Sussex
 - Migrated the UK's largest Human Resources Rails application to Amazon Web Services (EC2, VPC, RDS, EBS)
 - Development operations - Auto-scaling and load-balancing deployment Xero accounting, Hubspot CRM and Data Dog monitoring integration CI and automated deployment
 - RSpec, Cucumber for unit and feature testing
 - Query and analysis using SQL – database of 100+ tables, 400,000+ users

Selected presentations, conferences and public engagement

2020: – '[CoBox: How it Works](#)', NGI Ledger Jury Day, Zoom

2019: – 'CoBox: building blocks for a co-operative cloud', *NGI LEDGER Bootcamp*, Amsterdam

- 2018: – 'Social Secret Sharing', *MMT Winter Retreat*, Wellington
- 'Social Secret Sharing', *The Network Convergence*, Mieres, Catalonia
 - '[Community, Sovereignty, Scuttlebutt](#)', *Power, the Internet and Encryption*, Space4, Finsbury Park, London, UK
 - 'Welcome to Scuttlebutt', *Agorama Server Co-op*, Rebecca's Flat, London, UK
 - '[Offgrid Connections](#)', *MozFest 2018*, Ravensbourne University, Greenwich, London, UK
 - '[Cryptocurrency 101](#)', *Afrotech*, Richmix, London, UK
 - '[Hyphal Fusion: Fungi, Remediation & Collective Memory](#)', *The Local Gossip* podcast
- 2013: – 'Unemployment and Creativity', *DIY Cultures Fair*, Richmix, London, UK

Grants and awards

- 2020: – \$50,000, NGI LEDGER, Business Development for CoBox Cloud Co-operative
- 2019: – \$150,000, NGI LEDGER, Startup accelerator funding for CoBox Cloud Co-operative
- 2019: – \$161,000, [OTF Core Infrastructure Fund](#), 3rd iteration development of Dark Crystal
- 2018: – \$50,000, *Ethereum Foundation*, 2nd iteration development of Dark Crystal
- \$100,000, *Blockades Ltd.*, R&D in private key management, shared asset management, multi-signature crypto-currency wallets and savings pools
- 2017: – \$20,000, *Blockades Ltd.*, [MMT](#) – a grass roots collective crypto-currency speculation platform

Research and Design

- User-centered design workshops
 - Private key management – behavioural analysis of social patterns for secret sharing
 - Participatory UX and UI design – workshop-based research and integrated development
 - [Peer-testing and application usability](#)
 - Application UI Wireframing (advanced, >3 years)
- Written communication – experience of writing for general and specialist audiences, e.g. essays, feature journalism, grant applications, reports.

Computing, Languages and Programming

- JavaScript (advanced > 6 years), Ruby (advanced, > 3 years), BASH (advanced, > 4 years), Node (advanced > 4 years), Rust (beginner ~1 year), Clojure (beginner ~1 year)
- Infrastructure – Docker (intermediate > 2 years), Ansible (intermediate > 2 years), Vagrant (intermediate > 2 years)
- P2P networking (Hyper, Kappa, Dat, Scuttlebutt) (advanced, > 4 years)
- Asymmetric and symmetric elliptic curve cryptography (ed25519, secp256k1) (intermediate, ~4 years)
- Encryption software – PGP (advanced > 5 years), LUKS (intermediate > 2 years), libsodium (intermediate, > 3 years)
- Systems administration of UNIX-based operating systems (advanced > 4 years)

Education

- > Full-stack Ruby / JavaScript Developer 2016-2017
WeGotCoders Broxbourne, Hertfordshire
- > BA (hons) History, 2:1 2007 – 2010
The University of Sussex Brighton, East Sussex
- Research project supervised by Dr. L. Robinson '*The Performative Spatial Politics of the 'Carnival of Protest' in 1990s Britain*'
 - Specialist subject '*Paris in May 1968 and the Student Movement*'
- > A-Levels, History (B), Philosophy (A), Music (C) 2004-2006
Fortismere School Muswell Hill, London