

# George Whewell

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Software Developer  
github.com/georgewhewell  
georgerw@gmail.com

**DEGREE** *Bachelor of Science, Second class honours, upper division*  
Physics and Astronomy  
University College London, graduated June 2011

**EXPERIENCE** Tracr Ltd (De Beers Group) — London, UK / Remote  
*Senior Software Developer (Contract), Platform Team / ML Team* January 2020 — May 2021

- Refactoring and cleanup of microservice product (Python, FastAPI, MongoDB)
- Blockchain integration (Ethereum, NodeJS)
- Intel SGX Enclave integration (Rust, Actix)
- Data Engineering pipelines for machine-learning team (Python, Numpy, Argo, Zeebe)

Babylon Partners Limited — London, UK  
*Senior Software Developer (Contract), AI Engineering* September 2018 — July 2019

- Participated in redesign, rebuild and roll-out of core business product, transitioning from legacy monolith to distributed microservice architecture. (Python, Flask, Kubernetes)
- Managed data-migration from legacy datastore to new schema and rollout across new regions. (PostgreSQL, SQLAlchemy)
- Built high-performance test doubles for load testing and profiling (Rust, Actix)
- Supported internal and external teams in integrating with our new platform and providing data to BI team.

AIG Europe Ltd — London, UK  
*Backend Developer, Science Team (Contract)* June 2017 — June 2018

- Productionised existing prototype booking system. (Falcon, SQLAlchemy)
- Developed backend for schema-driven insurance broking SPA (Django, Django Rest Framework)
- Integrated various internal APIs and external data sources (SOAP, REST)

Dare Digital Ltd — London, UK  
*Full-Stack Developer (Contract)* April 2017 — May 2017

- Go-live prep for dot-com build using geo-spatial data and Django CMS. (Django CMS, Javascript)

Beyond Digital — San Fransisco, USA (Remote)  
*Backend Developer (Contract)* January 2017 — March 2017

- Developed custom Python library for elastically scraping a website using map/reduce queues on Google App Engine

- Developed plugin for Wagtail CMS system using aforementioned library allowing content admins to deploy static snapshots of their site to a global CDN for unrivalled performance and security.
- Collaborated remotely with team in San Francisco, USA to integrate libraries into upcoming products

Arts Alliance Media — Hammersmith, UK  
*Python Developer (Contract)*

March 2016 - October 2016

- Refactor of core business product, migrating to Python 2.7, fixing dependencies
- Fixed bugs, memory leaks and performance issues in heavily threaded application
- Introduced containerised CI testing, validation testing and exception shipping
- Integration of new features, including support for new hardware

*Full-stack Developer (Bespoke)*

August 2015 — February 2016

- Developed and deployed event-sourced CRM for UK media group handling billions of interactions per year. (Django, Postgres, Elasticsearch, AWS)

Beyond Digital — London, UK/San Francisco, USA  
*Senior Backend Developer*

August 2011 — June 2015

- Spent eight months in San Francisco supporting digital creative team as first US backend team member
- Supported YouTube *Carnaval* Project in Salvador, Brazil by coordinating work with London team and implementing post-launch adjustments. Scaled from 0 to over 400k concurrents in minutes (Python, Django, App Engine)
- Architected and implemented backend systems for Virgin.com with a real-time user-tracking and content recommendation engine (Python, Tornado, Elasticsearch)
- Coordinated with internal Google teams to build a prototype 3D-scanning application (Python, Tornado, AngularJS)
- Developed second-screen presentation platform allowing audience members to follow a presentation on their mobile device in real-time for high-profile sales event (Python, Django, App Engine)

Icera Semiconductor Inc (now *Nvidia*) — Bristol, UK  
*Product Validation Team*

(Internship) June 2010 — October 2010

- Performed and developed performance, regression and functional tests for mobile chipset firmwares
- Automated test suite, from uploading new firmwares to producing reports and charts
- Documented and filed detailed bug reports, obtained core dumps and tracebacks for bugs

Jomoto Industrial Automation Inc. — Coventry, UK  
*Developer*

(Non-staff) June 2008 — October 2009

- Fixed bugs in Visual Basic industrial automation package for building prefabricated houses

- Added new outputs showing additional information for display on factory floor

## COMPUTER SKILLS

*Core Languages:* Python, Rust, Elixir, Javascript, Erlang

*Software & Frameworks:* PostgreSQL, Kubernetes, Terraform, Nix/NixOS, Google Cloud, Amazon Web Services.

*Operating Systems:* Linux, OS X, Windows

*Open Source*

- I publish and maintain various Python libraries on PyPi and GitHub
- I contribute to the NixOS Linux distribution and maintain various packages

*Extra*

- Built prototype B2B SaaS product using SotA spread-spectrum audio watermarking algorithms. (Scipy, Numpy, GCP)
- Built market-making/arbitrage bot from scratch, streaming orderbooks from dozens of cryptocurrency exchanges in real time. (Elixir, Erlang, C++)
- Built ETL/Trading CLI tool for decentralized exchanges (Uniswap, Rust, PostgreSQL)
- Built automated, internet-connected solar plant monitoring/watering/feeding system using embedded linux and BTLE (Rust, NixOS, MQTT)

## EDUCATION

*University College London*

- Awarded 2:1 degree in Physics and Astronomy, 93% in Scientific Computing using Object Oriented Languages
- Wrote a passenger simulation for arbitrary urban transit systems in order to model congestion as my contribution to a group project
- Implemented Inverse Abel Transform image pipeline in Scipy/Numpy to reconstruct 3-D experiments from 2-D projection as part of tutored research

*King Henry VIII School*

- A-levels in Maths, Economics, Computing, Physics
- 9 A-grade GCSEs

## REFERENCES

Available on request