George Whewell

Software Developer
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DEGREE

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

EXPERIENCE

Dialectic Atelier AG — Zug, Switzerland / Remote   June 2021 — Current

- Built monitoring service to simulate contents of txpool on Ethereum and alert based on state diffs (Rust, Revm)
- Refactoring and productionize portfolio tracking tool, fetching balances and prices across crypto exchanges, blockchains and traditional banking to extract insights, aggregations, and provide API for web interface. (Rust)
- Built tools to assist investment team in scouting and managing existing investments (Rust)
- Added new integrations and extended automated yield-farming application (Golang, Solidity, Rust)
- Built MEV-aware keeper bots for various projects (Rust, Solidity, Ethereum)
- Provided insights and assessments on potential investments, assisted portfolio companies

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 Fransisco, 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 handing 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 Fransisco 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: Rust, Solidity, Python, Golang, Elixir

Software & Frameworks: Ethereum + associated chains, PostgreSQL, Kubernetes, Terraform, Nix/NixOS, Google Cloud, Amazon Web Services.

Open Source
- I publish and maintain various Python libraries on PyPi and GitHub
- I publish and maintain various Rust libraries on crates.io 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)
- Built NFT arbitrage MEV bot (Rust, Ethereum, Flashbots)

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