James Ball

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Experience

Palantir • 2022-Present

Palantir solves the world's hardest problems with disparate data.

2024-Present – Technical Lead
- Managed 5+ engineers to deliver high-impact outcomes for our work with the NHS
- Developed both an internal and client-facing operations centre to manage delivery for 40+ trusts and demand across the fleet

2023-2024 – Forward Deployed Engineer
- Enabled an NHS trust to have standardised and unified critical healthcare data for the 1st time ever

2022 – 6-month placement
- Developed government platform to resettle over 128,000 Ukrainian refugees in the UK
- Cleaned-up and pipelined poor-quality data
- Created advanced user workflows for entity resolution, allowing for data deduplication

Skills developed:
- Team Management, TypeScript, Python, Apache Spark, Client Relations

Netcraft • 2020-2021

Netcraft specialises in finding and taking down web scams that impersonate other companies.

2020 + 2021 – Internship
- Researched and automated the discovery and takedown of 100s of technical support scams
- Prospected countermeasures for web scams I uncovered to companies worth over $400B
- Detected phone scams using Twilio

Skills developed:
- Perl, Regex, Bash, JavaScript, MySQL, Git, PHP, Prospecting, Research, Client Relations

Teaching Assistant • 2020-2022

Teaching tutorials for Java, Kotlin, C, and Haskell for first year computing students at Imperial.

Thirtyone:eight • 2016-2019

- Rewrote the company website
- Developed hardware auditing program to gather data about staff PCs

Skills

Proficient in C++, Java, Python, PyTorch, TypeScript, Spark, C, Scala, Regex, Linux, Git, Perl
Exposed to Dart / Flutter, C#, JavaScript, Kotlin, PHP, Haskell

Education

Imperial College London: Sep 2019 – Jun 2023
- MEng in Computing (with AI and ML)
- Achieved First Class Honours with overall percentage of 84.95%
- Over 90% in final-year project, software engineering, and machine learning modules

Wilmington Grammar: Sep 2012 – Jun 2019
- A* in Computing, Maths, Further Maths

Awards

- Achieved Dean's List in Year 2, 3, and 4
- Awarded first place Ocado Technology Group Project Prize for KidneyCaliper
- Winton Capital Applied Undergrad. Project Computing Prize for final-year project

Projects

osci-render – website – GitHub – video

- Cross-platform audio plugin used by 1000s of music + visual artists
- Developed a high-performance synthesiser in **C++** that draws 3D objects, images, text, and video on a CRT display using audio
- Developed with other open-source collaborators alongside feedback from artists
- Designed to be extensible, allowing artists to synthesize their own audio + visuals with **Lua**
- Independently earned £20,000+ by using my software to create visuals for major companies

Kidney Diffusion – GitHub – report – paper

- Final-year project using diffusion models to create AI-generated medical kidney imagery
- Uses a novel method of generating pairs of segmentation masks and matching images
- Introduces novel architecture for generating ultra-resolution images >1 gigapixel in size
- Led to SOTA data-augmentation performance
- 2 papers published following the work at **MICCAI DART'23** + **MICCAI 2024** conference
- Developed using **Python** with **PyTorch**

KidneyCaliper – video – report

- Automated deep-learning-based workflow for pathologists resulting in 10x faster annotation
- Automatically annotates and analyses regions of a kidney biopsy slide image
- Provides valuable statistics for pathologists that were previously infeasible to obtain