

Harry O'Brien

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Data Engineer with full stack experience.

Technical Skills: Strong in Python, particularly Flask, Dash, and Pandas. Experienced in MySQL, Azure, AWS, PostgreSQL, React, Maven, Jenkins, and Power BI.

Education

2018 – 2022 **BSc Management Science and Information Systems, Trinity College Dublin**
Overall Grade: First Class Honours

- Focused on Python Software Development. Electives covered finance, probability, mathematics, management, Java, Javascript, HTML, MySQL, and PHP.

College Thesis

Web app in Python, Flask, and Plotly Dash to import and visualize fitness data. It can be viewed here:

<https://fyp-web-app-harry.herokuapp.com/>

Work Experience

Oct '23 - Present **Stryker Biomedical, Limerick**
Data Engineer

- Responsible for all dashboards & corresponding ETL pipelines used in Stryker's Limerick plant, Stryker's largest plant by revenue. These dashboards are used daily by all senior management.
- Used various linear & multivariate analysis methods to identify root causes of scrapped product.
- Established & managed SQL databases, Power BI dashboards, and used Pandas, PySpark, NumPy, and SciPy.

Jan '22 - June '23 **Deutsche Bank, Berlin**
Backend Developer

- Worked on Autobahn FX, Deutsche's trading platform.
- Provided first line technical support to colleagues, 3rd parties, and users of Autobahn FX.
- Worked with Grafana & Prometheus to monitor & improve server uptime, and Node.js & React to develop a custom interface to analyze server data.

June - Sept 2021 **New York State Comptroller's Office, New York**
Data Engineer – Summer Intern

- Built data pipelines, upgraded frontend form entry, produced data analysis reports, built database infrastructure on AWS, dashboards in Power BI, and reported directly to the head of IT.
- Laid the groundwork for a tax fraud detection model that has saved the State of New York billions of taxpayer dollars.

Side projects

PowerPoint web app - Built a web app to automatically append the relevant audio files to their corresponding Powerpoint slides using Python, Flask, and an open-source package 'python-pptx'. Credited contributor to the 'add_video' function on this package. github.com/harryob2/ppt-narration-tool

Self-service dog wash machine – Build and sell self-service dog wash machines from scratch, including wiring internal circuitry, building an Android app to accept physical card payments and operate internal circuitry, and managing installation. github.com/harryob2/dog-control-app/tree/develop

Interests and Achievements

Leaving Certificate 2018 – Received 613 points. H1 in Maths, Engineering, Technology, Economics, Construction, Physics, and Applied Maths. Top 0.5% nationally

Laidlaw Leadership Scholar, Class of 2020 – Prestigious scholarship with €13k in funding and numerous leadership workshops aimed at identifying and developing young leaders.

Washington Ireland Programme, Class of 2021 – Distinguished programme for developing young leaders on the island of Ireland and forging closer ties between Ireland and the US.

References available on request.