# Tom Bracey Junior Data Engineer

tombracey22@gmail.com | 079 5831 0796 | Ealing, London | GitHub

Analytical and solution-focused individual with experience developing ETL pipelines, automating workflows and deploying infrastructure in the cloud. Making the transition from data-heavy admin roles into data engineering through self-study, a 3-month full-time bootcamp with Northcoders and hands-on project experience. Continuously learning, with a keen interest in building reliable, scalable systems.

#### **Technical Skills**

- **Programming:** Python (primary), JavaScript, Bash
- **SQL:** database design and analysis
- ETL: developing automated end-to-end data pipelines
- **Cloud:** experience writing Terraform for a range of AWS services
- Orchestration: Apache Airflow, GitHub Actions, AWS Step Functions
- Visualisation: Power BI, Apache Superset
- **Git:** experience with version control within collaborative projects

### **Experience**

#### Freelance Data Engineer | Tech Returners | April 2025

Developed a <u>CLI tool</u> which uses an AWS Lambda function to stream data from relevant news articles to an SQS message broker, aimed at enabling data analysis by the marketing and careers teams.

#### Apprenticeship Coordinator | King's College Hospital NHS Foundation Trust | Sep 23 - Mar 24

- Working in a team of 2 to increase and improve apprenticeship provision for trust staff
- Coordinating with over 30 training providers to maintain a broad programme offer, and ensuring they fulfill their obligations under the Apprenticeship Funding Rules
- Managed and optimised Excel-based data trackers to improve learner progress monitoring and reporting
- Wrote the 'Apprenticeships' webpage on the Trust site, and information on each programme on the staff intranet

# **Apprenticeship Operations Manager** | KBM Training and Recruitment | Feb 22 - Jul 23 (started as 'Apprenticeship Administrator')

- Managing a database of candidates using Zoho Recruit, creating new data fields and mapping online forms to auto-populate them
- Entering and validating Individual Learner Record data to reserve and claim government funding, used SQL to streamline these processes
- Improving compliance processes and the first point of contact for queries around the Apprenticeship Funding Rules
- Managing 4 people to provide information and guidance to apprenticeship candidates, and to efficiently assess their eligibility
- Correspondence with OFSTED on the quality and compliance of the training programmes

#### **Education**

**AWS** | Certified Cloud Practitioner | April 2025

- Expanded my knowledge of the range of AWS services
- Confident choosing the most appropriate cloud solutions for different use cases

Harvard CS50 | Web Programming with Python and JavaScript | March 2025

- Learned how to build good-looking, performant websites
- Projects included developing a social network and an e-commerce site

IBM | ETL and Data Pipelines with Shell, Airflow and Kafka | January 2025

- Consolidated my knowledge of ETL processes after my Northcoders bootcamp
- Introduced me to more scalable tools for data processing and workflow orchestration

Northcoders | Data Engineering Bootcamp in Python | Sep - Dec 2024

- Learned how to write concise, 'Pythonic' code
- Pair programming every day, and code reviews developed my technical communication
- Strong emphasis on Test-Driven Development, using techniques such as mocking and patching to ensure comprehensive test coverage
- Co-developed and -deployed an ETL pipeline during the project phase, writing Terraform to interact with AWS services including Lambda, S3, RDS and Step Functions

#### University of Leicester | BA Economics and Politics | 2018-21

- · Gained analytical, financial and persuasive writing skills
- First introduced me to data analysis with SQL

## **Projects**

#### **Fantasy General Election**

Used SQL and a knapsack optimiser in Python to pick my team for a fantasy football-like game based on the UK General Election, and finished within the top 0.06% of players.

#### **E-Commerce ETL Pipeline**

Co-developed a performance-tuned ETL pipeline using CI/CD and AWS for a company selling tote bags during the project phase of my Northcoders bootcamp. Achieved 90% test coverage and kept development costs within £10.

#### sunny4money.co.uk

For my CS50W final project, developed a website for travel ideas, which finds UK users the hottest travel escape possible within any budget. Uses GitHub Actions to automate API calls and Pandas to query the data. Integrates Amazon Location Services to geocode user locations, and Google Gemini to write holiday descriptions based on the results.

#### **Recruitment Tool using Google Maps API**

Based on limitations of recruitment software I used in a previous role, demonstrated how using Google Maps API combined with a simple algorithm can be a cost-effective way of optimising recruitment.

References available upon request.