

**Data Engineer** with expertise in cloud-native data solutions, AI-driven innovation, and client-focused project delivery. Skilled in data pipeline design, **SQL** optimisation, and advanced data transformations, with hands-on experience in **Microsoft Azure**, **C#**, and **Python**. Proven track record in consulting and client interactions, helping organisations transition to modern, scalable data solutions while maximising business insights and decision-making.

### DATA ENGINEER, PLINC (FORMERLY PLANNING-INC.), Oct 2021 – Present

- **Promoted** from Programmer to Data Engineer in June 2023, responsible for delivering data infrastructure and analytics solutions for prominent retail, automotive and restaurant clients across the UK and Europe.
- **Project Scoping & Execution:** Scoped out and delivered projects exceeding **£150k (A\$295k)** in 2024, leveraging data engineering expertise to create impactful data pipelines that improve customer insights and enhance client decision-making. Some examples include:
  - **Browse Data Integration:** Designed and deployed a large-scale integration of GA4 browse data into the database of a major UK automotive retailer, managing **1M+** daily views and enabling data-driven marketing by connecting browsing data to customer profiles via cookie IDs.
  - **Autocentre Real-Time Pipeline:** Transitioned the client's autocentre data from daily file uploads to a real-time data stream, enabling real-time customer interactions across **540+** UK locations while maintaining customer matching levels to accurately link transactions to existing customer profiles.
- **Cloud Migration:** Played a crucial role in migrating **7M+** customer records for a large UK restaurant chain from on-premises systems to Azure. This involved establishing cloud databases, setting up ingestion jobs, and configuring Azure Data Factory pipelines.
- **Technical Skills:**
  - **SQL:** Used daily for ETL and complex data transformations.
  - **C#:** Developed backend systems and APIs to support client interfaces.
  - **React:** Created an interface for client tools, including campaign analysers.
  - **Client Interaction:** Regularly participate in client meetings, discussing project feasibility and tailoring solutions to their needs.

### AI AMBASSADOR, PLINC (FORMERLY PLANNING-INC.), July 2024 – Present

- Advocated for the adoption of AI technologies to streamline workflows.
- Developed a C# chatbot that enables clients to inquire directly about their own data, retrieving real-time counts and insights through backend database queries.

### NEAR-EARTH OBJECTS (NEO) DATA PIPELINE, [github.com/AlvaroFieira/NASA\\_Asteroid\\_Tracker](https://github.com/AlvaroFieira/NASA_Asteroid_Tracker)

- Built a data pipeline system to process, classify, and visualise Near-Earth Object data from NASA's NEO API:
  - Utilised **Python** and **Kafka** for real-time data ingestion and processing.
  - Applied machine learning models with **PySpark** to classify NEOs based on characteristics.
  - Developed a **Flask**-based web dashboard for interactive data visualisation.

### RESTAURANT BOOKING AI CHATBOT, [github.com/AlvaroFieira/Restaurant\\_AI\\_Chatbot](https://github.com/AlvaroFieira/Restaurant_AI_Chatbot)

- Built an AI chatbot to manage restaurant information, bookings, and cancellations:
  - Designed with **C#** and **Semantic Kernel** to leverage generative **AI** for efficient, user-friendly interactions.
  - Integrated booking and cancellation features, enhancing user experience through streamlined and automated processes.

Sept 2017 – June 2021

## MEng AERONAUTICAL ENGINEERING WITH SPACECRAFT ENGINEERING

IMPERIAL COLLEGE LONDON

- Earned a **First-Class Honours** degree through a four-year integrated master's program.
- Became an Aeronautics Student Researcher (Aug – Oct 2020) and led a group of PhD students in designing a laboratory experiment for future Aeronautics students.

### AWARDS

- **Aeronautics Student Centenary Award:** Recognised for my excellence in a Group Design Project for reusable rocket propulsion systems.
- **Applications Award:** Granted to the team that produced the best Aerospace Vehicle Design Project.

### PROJECTS

- **Final Year Project:** Developed a UAV designed specifically for Venus's exploration. Utilised MATLAB for algorithm development and ISIGHT for blade optimisation, incorporating evolutionary genetic algorithms to enhance performance and efficiency.
- **Design and leadership:** Successfully led various CAD projects, demonstrating strong leadership and project management skills. Additionally, completed a flight test course at Cranfield University, furthering my practical knowledge.

## CO-FOUNDER, ASTRON SYSTEMS LTD., April 2021 – July 2022

- Co-founded a start-up focused on reusable launcher technologies suitable to the small satellite market.
- Developed investor relations and secured the Wescott Research Grant for prototype development.

## CUSTOMER SERVICES ROLES, JOE AND THE JUICE, Oct 2018 – June 2019

- Managed operations as a Barista at Joe and the Juice, London, showcasing teamwork, leadership, and adaptability.
- Took charge of store during opening and closing and worked under pressure in a team of up to six during peak times.

## CANTERBURY SCHOOL OF GRAN CANARIA, CANARY ISLANDS (SPAIN), Sept 2002 – June 2017

### SCHOOL ACTIVITIES:

- **Sixth Form Deputy Head Boy:** Delivered speeches at major events and coordinated student activities.
- **Duke of Edinburgh's International Award:** Completed fundraising and awareness initiatives, including a film project on forest fires.
- **Exchange programme:** Participated in a two-week academic exchange in Philadelphia, USA.

### SCHOOL QUALIFICATIONS:

- **A Levels:** 5 A\*, 1 A including Physics, Further Mathematics, Chemistry, English, Spanish and French.
- **IGCSEs:** Highest Mark in Spain in Physics and Geography and Highest Mark in Europe in Further Mathematics.

### LANGUAGES:

Spanish (Native), English (Fluent), French (Intermediate)

### PROGRAMMING LANGUAGES:

Python, C#, SQL, HTML, CSS, JavaScript, React, MATLAB

### DATA ENGINEERING TOOLS:

Microsoft Azure, Azure Data Factory, Azure DevOps, SSMS, SSIS, Git, PySpark, Kafka, Flask, Jira

### OTHER SKILLS:

Full British Driving License, Leadership, Teamwork, Communication, Organisation