## Senior Data Engineer
## Job Description and Personal Specification

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| **Job title:** | Senior Data Engineer |
| **Place of work:** | Catch22 |
| **Hours of work:** | 37 |
| **Salary/Grade:** | MPA - Partner |
| **Reports to:** | Data Transformation Programme Manager |
| **Level of screening:** | Enhanced DBS |

## Who we are

Catch22 exists to help build a society where everyone has a good place to live, good people around them, and a fulfilling purpose. We call these our '3Ps'.

We achieve this in two ways. Firstly, we improve lives on the frontline through delivery of public services. Secondly, we use our knowledge to change 'the system', to fix the complex web that can trap and disempower those it was set up to help. With the heart of a charity and the mindset of a business, we are uniquely placed to deliver on this challenging agenda.

## Where you fit in

It's an exciting time for Catch 22 as we design and implement our first large scale data transformation project. **We're looking for a forward thinking, dynamic problem solver, you'll be Catch22's goto on data engineering.**

The Data Architecture Project will centralise Catch 22's siloed data assets into one ecosystem. This will allow us dive deeper into our insights from our current of projects and databases and measure impact. In the future we will use this valuable information to predict needs on the frontline of service delivery. Through this project you will work within the Evidence and Insight Team and across the business, with the wider Corporate Services Team and key stakeholders from Delivery Teams.

We are a rapidly growing but small team, we are Agile and fast paced. We ensure we are keeping up to date with the latest standards by using key tools such as Azure Data Factory, Databricks, Terraform, DevOps and Jinja. We utilise communication and collaboration across positions and believe trust and transparency are key drivers of best practice working. To allow for this we offer an environment built on shared ownership, unity and EQ.

## Main Duties & Accountabilities

As the Senior Data Engineer you will play a pivotal role in designing and building Catch22's data eco-system. Key areas of work will be as follows:

**Architecture Design**
Be the in-house technical lead for the further development and implementation of a dynamic, elastic and resilient data architecture structure which supports current and future contracts. The work is heavily reliant on cross departmental and external collaboration to identify need

and create data solutions therefore you will need to be able to communicate and translate complex technical concepts effectively. You will need to be able to understand the full data lifecycle, needs of the business and develop solutions accordingly.

**ETL Process**
Work with external and internal teams to build and implement Extract, Transform, Load (ETL) processes and comprehensive pipelines using tools such as Azure Data Factory, Azure Logic/Functions Apps and Databricks to extract data from diverse, complex sources across the business, transform into a useable format and load into data storage systems. There will be a need for you to review systems and suggest optimisation solutions for organisational efficiency and security.

**Data Pipeline Management**
You will be responsible for building and managing data pipelines which are fault tolerant, reliable and dynamic across the organisation.
Automate data workflows such as data ingestion, aggregation, and ETL processing. Work with the wider team and Information Security team to ensure data accuracy, integrity, security, and compliance throughout all workings and quality control procedure are in place.

**Data Modelling**
A large part of your work will be ensuring business readiness from the data we ingest, you will have strong knowledge of data modelling, creating queryable, efficient analytics-ready models. You will understand and determine how data is used and when, working alongside analysts to speed up analysis and making Catch22 AI/ML-ready.

**Cloud-Based Solutions**
You will be the go-to expert on all things Azure, including the management of the data infrastructure, best practices, cost optimisation and performance tuning.

**Skill Development**
As an expert in data engineering, you will be fundamental to Catch22's data maturity journey, upskilling and support data professionals across the business to sharpen and grow their skills whilst enhancing the established environment of skill development both within the team and across wider Catch22.

**About You**

You will have at least 6+ years of data engineering roles and be an Azure expert, you thrive in small, collaborative teams with fast working and to a high level of quality. You will need to have enough business acumen to understand how our work ties into the bigger picture whilst having a sharp eye for details and spotting inconsistencies. Your skillset will look similar to this:

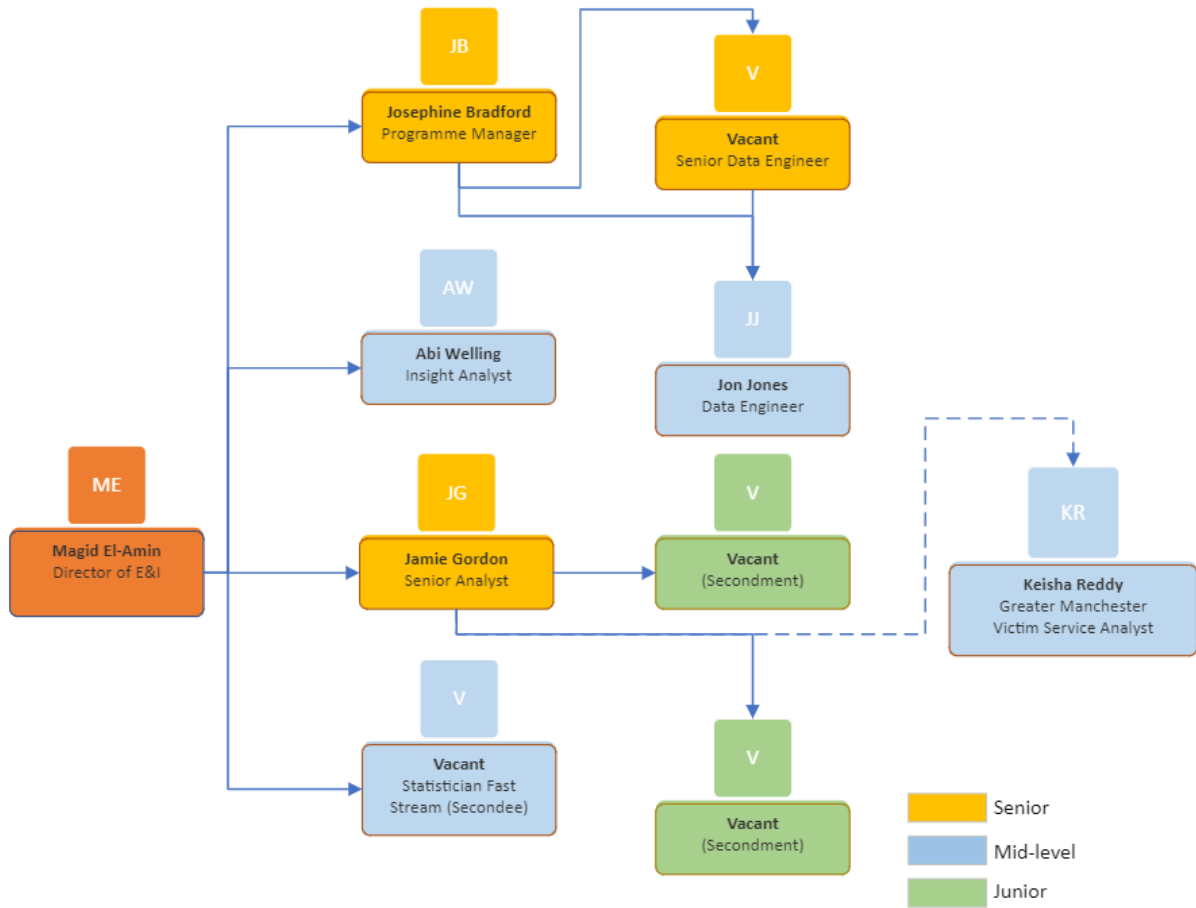| Data Analysis and Synthesis: bring multiple data sources together in a conformed model for analysis. | Cloud Management: expert in managing and optimising cloud data management systems. | Data Modelling: understand the concepts and principles of data modelling and can produce relevant data models. | Programming and Building: able to lead on design, code, test and correct with input from others on specifications. |
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| Technical understanding: knowledge and understanding of technical concepts, within the role and wider landscape. | Skill Development: ability to lead and coach others to improve team's skills. | Collaboration: ability to work across multi-teams and external resources to provide best outcomes. | Strategy: be able to assess how work sits in the wider landscape of Catch22 and subsequent potential. |

Awareness     Practitioner     Expert

## What does good look like for this role?

Key success outcomes would look like

- Data at Catch22 is captured within one eco-system and systems are maintainable.
- Catch22 is well positioned for future data insights, building prediction models and data science opportunities by Summer 2025.
- Clear and well documented data pipelines are established and maintained.
- A data maturity framework is co-created with Data Transformation Programme Manager and other collaborative stakeholders.
- Providing strong foundations of data quality, governance and security in order to future proofing of data practices within Catch22

## Organisational Relationships

As well as working with the internal Evidence and Insights Team you will be communicating with a number of stakeholders, such as the appointed consulting agency and the external managed service provider.

www.catch-22.org.uk

**Magid El-Amin**
Director of E&I
(ME)

**Josephine Bradford**
Programme Manager
(JB)

**Vacant**
Senior Data Engineer
(V)

**Abi Welling**
Insight Analyst
(AW)

**Jon Jones**
Data Engineer
(JJ)

**Jamie Gordon**
Senior Analyst
(JG)

**Vacant**
(Secondment)
(V)

**Keisha Reddy**
Greater Manchester
Victim Service Analyst
(KR)

**Vacant**
Statistician Fast
Stream (Secondee)
(V)

**Vacant**
(Secondment)
(V)

| | Senior |
| | Mid-level |
| | Junior |

# Job Title: Person Specification

| COMPETENCY | ESSENTIAL | DESIRABLE | ASSESSMENT |
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| **QUALIFICATIONS** | Significant previous experience of working in a data engineering role where the skills you have developed can be transferred to this Senior Data Engineer role. | A qualification in data engineering or similar advanced qualification. | Application |
| **KNOWLEDGE** | Advanced ability to assess and organise raw data using appropriate methodology and process.<br><br>Advanced knowledge in database management, data modelling and data warehousing.<br><br>Experience building data solutions in the cloud (Azure).<br><br>Experience writing SQL queries and Python code to manipulate data for analytics and data science.<br><br>Advanced knowledge and experience of Azure fundamentals, such as Governance, Security & Monitoring, Azure Storage.<br><br>Knowledge of GDPR and data security best practices, as well as frameworks for testing, monitoring and alerting in relation to data pipelines. | Knowledge of social policy issues and some working knowledge of Catch22's political, economic and societal context.<br><br>Experience of implementing Infrastructure as Code, such as Terraform, is a bonus.<br><br>Awareness of how data is used in a range of analytical and evaluation techniques | Application/ Interview |
| **EXPERIENCE** | Extensive experience and proven track record of data modelling, building and testing. | Data engineering certificate | Application |

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| | Experience of designing and leading data processes.<br><br>Experience in write high-quality technical documentation and READMEs alongside your code and architecture diagrams. | | |
| **SKILLS & ABILITIES** | Strong interpersonal skills<br><br>Excellent written and spoken communication skills, with proven ability to communicate complex ideas in a clear and compelling way to a variety of audiences.<br><br>Expert skills in advanced data languages and techniques: SQL and object-oriented programming languages, such as Python, C#, .Net<br><br>Ability to manage multiple and competing priorities simultaneously with a pragmatic approach to data engineering, balancing the need to deliver high paced system integration with futureproofing and scalability. | Previous experience working as a mentor or coach either in a management or casual position. | Application/ Interview |
| **OTHER** | Understands and shares Catch22 values<br><br>Awareness of and commitment to Equality & Diversity<br><br>Willing to travel and work flexibly<br><br>A curiosity around the market and the desire to develop and undertake training as required | | Interview |