

Dominic Duxbury PhD

Senior Data Engineer



About me

Data Engineer and ex-AI researcher with experience working on real-time decision support systems and state of the art ML techniques.

📍 Birmingham
📞 07546272685

Areas of specialisation

AWS
Apache Flink
Lambda
Decision Support
Unsupervised learning

Interests

Bouldering
Gardening
Video games



EXPERIENCE AND EDUCATION TIMELINE

Feb 2022 - Present	Senior Data Engineer Netacea Hired as a data engineer then promoted to Senior in February 2023. <ul style="list-style-type: none">I led the development of an Apache Flink project for delivering real-time models; creating tickets, planning sprints and leading meetings to prioritise work for a team of six.I worked on the internal platform as part of a data mesh strategy to enable self-serve data and standardised consumption of high velocity data.We used AWS CDK to create reusable and scalable architecture components, processing billions of rows per day.
Oct 2017 - Oct 2021	Research Fellow University of Manchester The research combined stream processing with decision support methods. <ul style="list-style-type: none">The project was proposed and completed in partnership with BAE Systems, to enhance decision making in dynamic command and control scenarios.I was focused on high-stakes domains where a human is required to make the final call, equipping these systems with explainable and trustable AI.The project resulted in three papers, one of which is published and two in review.I also taught on the Software Engineering (UG) and Data Engineering (PG) courses.
Jun 2015 - Jul 2019	Data Scientist Laterooms.com I joined Laterooms as a 3-month industrial summer data science intern, then moved to a permanent data scientist role for a total of two years. <ul style="list-style-type: none">As part of a small data science team we developed a geoshape based search algorithm, leading to an increase of £0.90 commission per search.Using a data led strategy and collaboration across multiple teams we rolled out a new hotel ranking algorithm.I applied frontend experience to create dashboards to monitor A/B experiments in real-time.
Sep 2013 - Sep 2017	BSC - BA (Hons) 1st Class University of Manchester Mathematics and computer science joint honours. <ul style="list-style-type: none">In mathematics, I focused on statistics and pure mathematics, including group theory and information theory.In computer science, I gained experience in Python, Java, C, HTML, CSS and JavaScript.As a final year project, I produced my first data pipeline; using the twitter API and NLP techniques to classify the sentiment of tweets in real-time. The sentiment was then used to forecast small changes in bitcoin price.

A LEVEL

AAA Maths, Further Maths, Chemistry
B (79%) AS Economics

GCSE

6 A* including Sciences and Maths
5 A including English

PUBLICATIONS

2022	<i>Trustable Decision Support for Dynamic Applications (Thesis)</i> , University of Manchester eScholar.
2019	<i>Trusted and Auditable Decision Aids over Data Streams</i> , Proceedings of the Workshops of the EDBT/ICDT 2019 Joint Conference.
<i>Submitted</i>	<i>Dynamic decision making for situational awareness using drones: requirements, identification and comparison of decision support methods</i> , Expert Systems with Applications.

TALKS

Mar. 2023	"Tracking the Journey: Exploring Data Provenance in Machine Learning", at <i>PyData MCR</i> .
Apr. 2020	"Decision Support for Transport", at <i>Data Science in Transport Conference</i> .
Jun. 2018	"Trusted and Auditable Decision Aids over Data Streams", at <i>Combat Systems Expo 2018</i> .