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PROFESSIONAL EXPERIENCE

## Millennium Management, London

## Data and Software Engineer

01/2022 – 08/2023

- Lead engineer building greenfield data research platform in \$1B+ energy trading team
- Focus on helping to forecast demand, renewable generation and market prices in EU power
- Developing back-end, front-end, quant tools, reports, web/api/file scrapers, ETL pipelines and monitoring systems (for applications, data, forecasts/models, servers, databases, etc.)
- *Technologies*: Python, Linux, Airflow, Jenkins, SQL Server, AWS (Batch, S3), Datadog

## Lyst, London

## Senior Software Engineer

11/2020 – 01/2022

- Worked on a global, data and technology driven fashion platform with 160 million users
- Developed microservices, client libraries, data pipelines, webhook listeners, internal dashboards and moderation tools, and website features (focusing on SEO/organic growth)
- *Technologies*: Python (Django, FastAPI), Docker, CircleCI, Terraform, Snowflake, AWS (ECS, Glue, Athena, Step Functions, Batch, SQS/SNS, S3, RDS), PySpark, PostgreSQL, Redis, Grafana, Sentry, New Relic, Kibana

## Lloyds Banking Group, London

## Data and Software Engineer

04/2019 – 11/2020

- Worked on developing a cloud-native banking data platform on GCP from scratch
- Previously Data and Software Engineer in Machine Learning lab – developed data pipelines and Python monitoring package; delivered SE training for Data Science grads
- *Certifications*: *Associate Cloud Engineer* (02/2020) *Udacity ML Engineer* (06/2020)
- *Technologies*: Python, Protobuf, Jenkins, Docker, Terraform, Beam, PySpark, SQL, GCP (Pub/Sub, Dataflow, BigQuery, Spanner, Data Catalog)

## IOTA Foundation, London/Berlin

## Research and Development as part of M.Sc. Thesis

04/2018 – 09/2018

- Developed DLT *simulation framework* in Python, *published research* – awarded distinction

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EDUCATION

## Imperial College London, UK

## M.Sc. Computing Science, Distinction

09/2017 – 09/2018

- 12 months practical conversion M.Sc. program in Computer Science
- *Notable modules*: Software Engineering (75%), Machine Learning (76%), Network and Web Security (73%), Logic and AI Programming (75%), Algorithms, Databases
- *Thesis*: «A Multi-Agent Simulation Framework and Analysis of the IOTA Tangle» (final mark 83%, *research paper* accepted at *Symposium on Cryptocurrency Analysis 2018*)
- *Engineering group project*: Image Recognition using Deep Neural Networks with UK's largest online grocery retailer (81%) – technologies include Python, TensorFlow, Keras, flask

## Maastricht University, NL

## B.Sc. International Business, Cum Laude

09/2013 – 07/2016

- *GPA*: 8.8 out of 10 (top 3%), Finance major, *Beta Gamma Sigma* intern. honour society

## The Hong Kong University of Science and Technology, HK

## Exchange Semester

09/2015 – 12/2015

- Investment/Portfolio Analysis, Negotiations, Intro to Computing, Chinese Economic History

## Burgau-Gymnasium, Düren, GER

## Abitur/A-Levels

09/2004 – 06/2013

- Graduated *first in class* with a GPA of 1.0 (equivalent to A\* UK or 4.0 US)

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SKILLS & INTERESTS

## Technologies

- See [manuel-zander.dev/tech](https://manuel-zander.dev/tech)

## Languages

- German (*native*), English (*fluent*)

## Interests

- Football, electronic music/DJing, cooking
- Backpacking: China, Taiwan, Vietnam, Philippines, Cuba, Myanmar, Laos, Thailand, Mexico, Belize, Colombia, Montenegro, Guatemala, El Salvador, Nicaragua, Argentina, Brazil