

SUMMARY

Data Engineer focused on applying machine learning to image and geospatial data. Passionate about software development, maintainability, and applying technology for positive social outcomes.

SKILLS

Python, Java, SQL, R, HTML, CSS, Matlab, Clojure
NumPy, pandas, GeoPandas, SciPy, scikit-learn, scikit-image, OpenCV, PyTorch, ...
Git, Docker, Jenkins, Kafka, Redis, Jupyter, L^AT_EX, UNIX, (AWS & Azure & GCP)

EXPERIENCE

Numerico Technologies, Amsterdam / Remote

Data Engineer

Feb 2018 – Ongoing

- ▷ Developed software from initial research to national roll-out to optimise traffic inspector deployments on Dutch highways, reducing average time to attend incidents by 45 %.
- ▷ Led data science research projects on the use of camera data to monitor traffic flow and speed, and analysis of accident blackspots on highways.
- ▷ Developed an emergency vehicle routing and travel time engine using GPS trace data.
- ▷ Responsible for maintaining cloud infrastructure and developing a CI/CD deployment pipeline using Docker Compose and Jenkins.

Data Science for Social Good, Lisbon

Data Scientist / Technical Mentor

Jun 2017 – Jan 2018

- ▷ Developed an open-source fishing risk web application using RShiny, combining vessel tracking data with satellite imagery, using random forest to score vessels according to likelihood of illegal fishing behaviours.
- ▷ Created a model for predicting road accidents in the Netherlands using a bouquet of classifiers (XGBoost, random forest, SVM) with road features, weather features, and temporal features.
- ▷ Established AWS EC2 and PostgreSQL infrastructure for several teams, whilst mentoring a team of four, giving them technical advice and performing code reviews.

Faculty, London

Data Science Consultant

Jan 2017 – Apr 2017

- ▷ Consulted with the London Fire Brigade, implementing topic modelling methods to classify a corpus of 37,000 fire incident reports, which revealed previously unknown fire scenarios.
- ▷ Finished intensive eight week training in machine learning, databases, and statistics.

National Institute of Informatics(国立情報学研究所), Tokyo

Software Engineer

Jun 2013 – Sep 2013

- ▷ Wrote software in Java for annotation and classification of phenotypes in μ CT images of mice.

EDUCATION

PhD Bioinformatics

*University College London and A*STAR Singapore*

Sep 2013 – Nov 2016

- ▷ Thesis: *Image processing and analysis methods in quantitative endothelial cell biology*
- ▷ Developed automated image analysis pipelines for use in high-throughput microscopy assays, using machine learning to segment and classify cell organelles.

MSc Computer Science

University College London

Sep 2012 – Sep 2013

- ▷ Awarded Aardvark Scholarship 2012

BSc Natural Sciences

Durham University

Sep 2009 – Sep 2012

- ▷ Second Class (Division One) Honours - Physics and Geophysics

HOBBIES

In my free time I enjoy cycling, cross-country skiing, learning French, Vipassana meditation, playing chess, and exploring the Ethereum ecosystem.