Nathaniel **Forde**

SENIOR DATA SCIENTIST

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Short Profile

- Experienced Data Scientist specialising in probabilistic modelling of risk and causal inference.
- Built, deployed and monitored ML solutions on AWS cloud and bare-metal stacks.
- Open Source Contributor @ PyMC
- Academic research background in mathematical logic and philosophy

Experience

Personio *Dublin*
STAFF DATA SCIENTIST *April-2024-Present*
- Leading Experimentation design and assessment for Data Science in Personio. Developing and experimenting with NLP and LLM solutions. Forecasting revenue and costs. Cross functional statistical consultation across the business. Mentoring Junior colleagues

Personio *Dublin*
SENIOR DATA SCIENTIST *Nov 2021-April 2024*
- Working within the Product and Engineering team to measure risk and optimise costs (broadly construed) in the software development life-cycle. Leading projects from design, data collection to modelling and model maintenance. Sample projects: Bayesian Modelling of Latency across cohorts, Simulated intervention studies and Estimation of UX pain. Survival Modelling (Time to Failure) studies. Python AWS tech stack

Cartrawler *Dublin*
DATA SCIENTIST (R & D) *Nov 2019-2021*
- Building and maintaining models to move markets. Focused on cost reduction by accurate demand forecasting and insurance cost prediction with explainable ML and probabilistic models. Sample Project: Built customer segmentation and ran A/B testing to aid dynamic pricing models through elasticity estimation. Tech Stack: Python, PYMC, scikit-learn and internal ML-pipeline packages

Paddy Power/Betfair *Dublin*
, SENIOR INSIGHTS ANALYST *Feb 2018-2019*
- Working within the Customer Operations Insights team using data science techniques to better understand the needs of the customer, in areas of Fraud, Responsible Gambling, CS, CX, Payments. Sample Projects: Developed NLP tool for a sentiment prediction on gaming industry customer service chat-data. Worked with industry think tank to refine and augment external and internal model for predicting problem gambling. Deployed propensity modelling projects to evaluate causal effects of interventions with customers e.g. the ROI for VIP relationship management. Built Shiny web-app for the measurement of customer service QA procedures

Marsh & McLennan *Dublin*
SOFTWARE DEVELOPER *Mar 2017-2018*
- Worked in Guy Carpenter's Catastrophic Risk research team developing Web-applications to serve up and automate the reporting of the team's Risk prediction models to aid the pricing of client portfolios against the risk of earthquakes, fires and floods. Technical Stack: Go, Postgres for the back-end. Javascript (React and D3) for the front end

Marsh & McLennan *Dublin*
DATA ANALYST *Mar 2015-2017*
- Worked within a team of four to design and implement the Data Quality function for Marsh globally. Sample Projects: Developed statistical metrics and classification methods to assess the health of numerous data-sets including placement, sales, billing, and reference data.Built various reporting tools and analytic dashboards (Qlikview, Tableau) to motivate increased data-quality (GIGO). Coordinated with international teams to monitor and assess the process and progress of Data-Quality initiatives. Conducted bespoke analyses at request from senior stakeholders.

Education

University of Amsterdam: Institute of Logic, Language and Computation *Amsterdam, Netherlands*
MSC LOGIC *2011-13*
- Research thesis written on models of causal inference and other dependency relations. Focus in Linguistics and Logic with a focus on NLP and Formal Semantics.

Trinity College Dublin *Dublin, Ireland*
MPHIL (RESEARCH) PHILOSOPHY *2009-11*
- Research on Modal Logics and identity. Awarded an IRCHSS scholarship for this work.

UCD/Sorbonne Université   *Dublin Ireland & Paris, France*

BA Iɴᴛᴇʀɴᴀᴛɪᴏɴᴀʟ   *2005-09*

- Various courses in philosophy and literature. Spent a year in Paris through the Erasmus Programme