



# Nathaniel Forde

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## EXPERIENCE

### PERSONIO, Senior Data Scientist

Dec 2021 - Present



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, Data Scientist (R & D)

Nov 2019 - Dec 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

### PADDYPOWER-BETFAIR, Senior Insights Analyst

Feb 2018 - Nov 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 INNOVATION CENTRE, Software Developer

Mar 2017 - Feb 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 INNOVATION CENTRE, Data Analyst

May 2015 - Mar 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

### MSC. LINGUISTICS AND LOGIC

Sep 2011 - Sep 2013



*Institute of Logic, Language and Computation at the University of Amsterdam*

Research thesis written on models of causal inference and other dependency relations. Specialised in Linguistics and Logic with a focus on NLP and Formal Semantics.

### MPHIL. PHILOSOPHY

Sep 2009 - Sep 2011



*Trinity College Dublin*

Research on Modal Logics and identity. Awarded an IRCHSS scholarship for this work.



## BA PHILOSOPHY AND LITERATURE

UCD / La Sorbonne

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

Sep 2005 - Sep 2009

## SKILLS & LANGUAGES

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Native Speaker  
Conversational



Skilled at python coding and analysis. Production deployments.



Skilled at R coding and analysis.



Proficient at Javascript (React)



Skilled at SQL coding and Data manipulation



Proficient at Golang

## AWARDS & ACHIEVEMENTS

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### TEAM OF THE YEAR

Jun-2021



*Irish Analytics Institute*

Cartrawler's Team of 15 were finalists in 7 categories winning the Team of the Year prize

### MONGOL RALLY

May-2015



*Mongol Rally Charity*

Raised money for the Christina Noble charity foundation by completing endurance race to Mongolia