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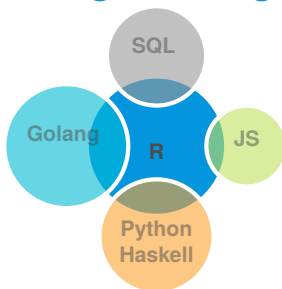
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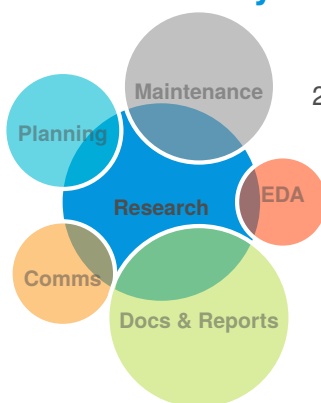gmail.com

Web

https://nathanielf.github.io/

Programming

Time Spent in a Day

Selected Experience

| 2019 - Now | **Cartrawler** | Dublin, Ireland |

Data Scientist - R & D

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. From data generation, feature creation to model design, production, A/B testing and improvement

| 2018 - 2019 | **Paddy Power Betfair** | Dublin, Ireland |

Senior Insights Analyst

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

Notable projects:

- Developed NLP pipeline for a sentiment prediction model for the gaming industry based on 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 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.

| 2017 - 2018 | **Marsh and McLennan - Innovation Centre** | Dublin, Ireland |

Software Developer

Working within the CAT Risk Studio™ developing web-apps to process and automate analytical solutions for statistical model assessment and refinement. Tools were built to compare industry portfolio prediction models against the historic record and Monte Carlo simulations.

The CRS conducts research in collaboration with 3rd parties to provide insight into catastrophic risk models for Guy Carpenter globally. Web development conducted with the following stack: Golang, Postgres, JS (React, D3).

| 2015 - 2017 | **Marsh and McLennan - Innovation Centre** | Dublin, Ireland |

Data Analyst

Worked within a team of four (expanding) to design and implement the Data Quality function for Marsh globally.

- Developed statistical metrics and classification methods to assess the health of numerous data-sets including placement, sales, billing, and reference data.
- Established the data-quality process within Marsh for reporting and remediation of data-quality issues.
- Built various reporting tools and analytic dashboards (Qlikview, Tableau, Shiny-Apps) to motivate increased data-quality (GIGO).
- Developed over-sight procedures of statistical process control to ensure the data-quality function was maintained and operated as designed.
- Coordinated with international teams to monitor and assess the process and progress of Data-Quality initiatives.
- Conducted bespoke analyses at request from senior stakeholders.

BI Preference
Qlikview ★★★☆☆
Tableau ★★★★☆
Power BI ★★☆☆☆

Places Lived

Languages
English ★★★★★
French ★★★☆☆

Masters: Coursework
Modal Logic, Statistical & Formal Semantics, Dynamic Epistemic Logic, Generative Grammars, Set Theory, Probability, Decision Theory, Analytic Philosophy: Frege to Kripke

| 2009 -2011 | **Trinity College Dublin** | College Greeen, Dublin, Ireland |

Researcher/TA - Philosophy Department
- Successfully designed and provided tutorials for sophomore mathematical logic courses, with a 90% pass rate.
- Set homeworks and graded examinations. Taught private classes (at request) in logic and mathematics.

Education

| 2011 - 2013 | **Master's Degree in Mathematics** | University of Amsterdam |

Dependence in Logic and Probability
This thesis developed models of explanatory updates within dynamic epistemic logic where strong and weak explanatory relationships were modelled using multiple dependence relations (e.g. transitive and non-transitive) drawn from deductive modal logics and Bayesian statistical networks.

| 2009 - 2011 | **Master's Degree in Philosophy** | Trinity College Dublin |

Identity over Possible Worlds
The thesis explored various philosophical applications of first order modal logics.

| 2005 - 2009 | **Bachelor's Degree in Liberal Arts** | UCD/La Sorbonne |

1st Class Honours
Courses in Philosophy, Mathematics, Politics, History and Literature

Awards and Achievements

| 07/2021 | **Analytics Institute Awards** | **Team of the Year** |

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

| 05/2015 | **Mongol Rally** | Christina Noble Foundation |

Raised money for charity by completing endurance race to Mongolia

| 09/2010 | **Irish Research Council - Graduate Scholarship Funding** | TCD/UvA |

Awarded on merit for my masters' research

| 09/2009 | **Philosophy Department Scholarship** | TCD |

Relevant Certifications

| 2015 | **Mathematical Biostatistics Bootcamp** | Coursera. E-learning |

Probability and Statistics

| 2015 | **Machine Learning** | Coursera. E-learning |

Optimization and Statistical Learning

| 2015 | **Regression Models** | Coursera. E-learning |

Linear, Logistic, Poisson and Quantile Regression

July 1st, 2019

Nathaniel Forde