Antoine Debugne, Ph.D.

Data Scientist × Consultant

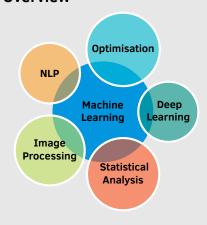
<u></u> 26/07/1991 🛑 Belgian

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Skills —

Overview



Frameworks

Machine learning

scikit-learn TensorFlow PySpark PyMC3

Optimisation

Gurobi **CPLEX**

Database

PostgreSQL Hive SparkSQL MongoDB

DevOps

git pytest Docker Airflow Flask Jenkins

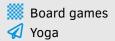
Visualisation

matplotlib seaborn Tableau

Programming

Python SOL Matlab LaTeX

Interests ——





Experience

2018 - ... **Senior Data Scientist** The Boston Consulting Group - GAMMA

Mission: implement solutions that creates a lasting competitive advantage for our clients by combining BCG's deep industry expertise with advanced skills in statistics, machine learning and mathematical optimisation.

Co-founder of patented engine Spend AI:

- · Co-founder of Spend AI, an accelerator for zero-base-budgeting projects based on NLP, clustering, and self-correcting 'human in the loop' techniques.
- Responsible for defining the technical solutions, dev. roadmap and human processes that led to the successful scale-up of Spend AI.
- Spend AI has since been deployed at ten clients over past 18 months, grossing \$10M in revenue, and helping consultants identify savings potential of 12-20% of our clients' SG&A costs (up to \$ 360 M).

Other notable projects:

- Optimised the global supply chain for a manufacturer of medical nutrition products through mathematical optimisation (MIP). Improved scheduling of production unlocked 10M€ of missed sales while avoiding 5M€ of freighting costs during playback. Tool is currently used by 50+ planners and has reduced length of planning cycles from 7 to 3 weeks.
- · Redefined CRM strategy for luxury fashion retailer by identifying and activating high-value customers through personalised recommendations. Pilot showed a 100% increase in revenue per contacted customer vs current marketing strategy.

Outreach & citizenship activities:

- Regular presenter of AI masterclasses to ExCom members and students
- Actively involved in every stage of recruitment process (interviews, talks, workshops, networking events, hackathons...)

Education

2014 - 2018 Ph.D. in Environmental Fluid Dynamics **University of Cambridge**

2010 - 2014 MEng in Civil & Environmental Engineer- Imperial College London

Finished top of class (first-class honours, 83/100). Master thesis published in leading peer-reviewed journal.

Projects - Research

2014 - 2018 Ph.D. thesis

University of Cambridge

- **Title**: A study of round, line-like and meandering turbulent fountains (link)
- Key outcomes:
 - Published four research articles in field's leading peer-reviewed journal.
 - Developed theoretical models and novel experimental methods to analyse complex, turbulent flows, significantly improving the accuracy and reliability of predictions as a result.

2020 - ... Oddity

The Boston Consulting Group - GAMMA

· Author of 'oddity', a Python package that accelerates the delivery of retailbased use cases (e.g. churn, cross-sell, NBA) by automating feature augmentation. Package has since been incorporated in two flagship products (B2B, TelCo) and deployed on client cases.

Languages

Native (or equiv.) **Fluent** Conversational

French, English German, Luxembourgish Spanish