BAVO (DE COCK) CAMPO

DATA SCIENTIST & STATISTICIAN

CONTACT

bavo.campo@kuleuven.be
bavodc.github.io/
@BavoDC
Bavo (De Cock) Campo
0000-0002-1310-6336
Publication list

EDUCATION

PhD in Actuarial Science
2024 KU Leuven

MSc in Statistics
2019 KU Leuven
Magna Cum Laude

BSc/MSc in Psychology
2012/2014 KU Leuven

GENERAL SKILLS

Programming
R
LaTeX
C++
Python
SAS

Operating Systems
Windows
Linux
MacOS

Data analytics
Data preprocessing
Data wrangling
Data visualization
Exploratory analysis
In-depth analysis
Predictive modeling

Modeling techniques
Statistics
Machine learning

Languages
Dutch
English
French
German

WORK EXPERIENCE

Non-Life Risk Officer
Ageas
10/2024 - Present

I contribute to the ongoing success of the organization by optimizing risk assessment frameworks, enhancing operational efficiency, and driving strategic decision-making. Drawing on my methodological expertise, I continuously refine, improve, and challenge existing processes.

- Automating internal model processes: managing the automation of internal model processes and runs, streamlining operations for enhanced efficiency;
- Methodology evaluation and enhancement: thoroughly examining and challenging existing methodologies, whilst developing and implementing alternative methods to drive continuous improvement;
- Guiding tool development: comprehensive testing and guiding the development of internal model tools, ensuring robustness and reliability;
- Tool deployment and testing: leading the development and deployment of tools for testing the models, facilitating thorough evaluation and validation of model outcomes;
- Implementation of external reinsurance model: implementing the external reinsurance model, optimizing risk management strategies for the organization.

Doctoral researcher at KU Leuven
Dpt. of Accountancy, Finance and Insurance
10/2019 - 10/2024

My research focused on workers' compensation insurance and fraud detection in motor insurance. I divised an algorithm to reduce hierarchically structured categorical variables (e.g. industry classification systems such as the NACE, NAICS) to their essence using a combination of natural language processing and clustering techniques. Additionally, I developed a data-driven workflow combining statistical and machine learning techniques to construct and validate an insurance pricing model. Further, I devised an insurance fraud network data simulation machine, to develop and evaluate insurance fraud detection strategies.

- Took responsibility for planning, organizing, programming, executing and analyzing research;
- Stayed up to date with and applied state-of-the art statistical and machine learning techniques in my research projects;
- Developed 5+ statistical software packages, of which 1 is published on CRAN;
- Presented intermediate research results at international conferences;
- Assisted and advised colleagues with programming related questions.

Senior Data Scientist at an insurance company (confidential)
Data Analytics Dpt. (as an external employee)
10/2019 - Present

- Translated the insurance company's research questions into an analysis plan;
- Presented research results to the insurance company in a clear and concise manner;
- Analyzed and improved the insurance company's pricing model, which is currently implemented and used by the company;
- Provided confidential reports about research results, tailored and documented statistical software to be used by the insurance company;
- Ensured continuation of a research project of a post-doctoral researcher.

WORK EXPERIENCE (*CONTINUED*)

Statistical researcher at KU Leuven

Dpt. of Development and Regeneration

02/2015 - 09/2018

As part of the statistical unit of the International Ovarian Tumor Analysis (IOTA) group I performed, reported and discussed the results of the statistical analyses.

- Worked on 20+ research projects, both clinical and methodological;
- Contributed to highly influential research published in high impact journals, such as The Lancet Oncology, and which resulted in a total of 1000+ citations;
- Managed database of one of the longest running international prospective cohort studies to date (i.e. the IOTA5 study with a follow-up of 9 years);
- Developed 10+ statistical software packages, of which 1 is published on CRAN and 3 that are still actively being used internally.

Voluntary research associate at KU Leuven

Dpt. of Managerial Economics, Strategy and Innovation

03/2016 - 04/2019

Worked as a consulting statistical researcher on (confidential) projects for the private sector.