Gerrit Jan de Bruin

Work experience

2022–today *Scientist at TNO*

2017–2022 *PhD-candidate at Leiden Institute for Advanced Computer Science and Ministry of Infrastructure and Water Management*

My research focuses on risk assessment in the inspectorate domain using tools from network science and machine learning.

Assisted in the courses 'Programming Methods' (first year course into C++) and 'Data Science and Process Modelling' (third year course into machine learning with Python and building dashboards with Javascript).

Organized PhD seminars in 2021.

2010–today *Freelance mystery shopper*

I performed many mystery visits to all kind of companies, such as airline companies, international train services, shops, hotels, bars, etc. My job is to evaluate the service and check whether the venue meets specific guidelines provided by the company. I report back to management about my findings.

2015–2019 *Volunteer at christian church 'De Wegwijzer Almere'.*

Managed with others all ICT business including installing of cash decks, live streaming, website and communication system for over 300 people.

2014–2020 *System administrator at management consultancy 'Van der Meer & Van Tilburg'*

Responsible for buying and maintaining all necessary cloud, hardware and software solutions.

2012–2014 *Student Assistant at Utrecht University*

Tasks:
- Helping at Open Days and "Meet the Bachelor"
- Designing chemistry tests and make them available in DSO (Digital Chemistry Environment)

Skills

Full Stack Data Scientist
- Machine learning in Python
- Deep Learning in Tensorflow and PyTorch
- Extensive experience with technologies like C#, C++, R, SAS, Unix, Git, Kubernetes, and Docker

Full Stack Web Developer
- HTML, CSS, XML, JS, jQuery, PHP, SQL

Other
- Controlling and sensing environment with the aid of micro-controllers
- Mathematica, Matlab, LaTeX 2_ε, Microsoft Office 365, PowerShell

Languages	*Dutch and English (Anglia Certificate Of English — Advanced level with Merit Grade)*
Driving	*Driver license (obtained in 2013)*
Coaching	*Certificate for "Korfbaltrainer 2" from the KNKV*
Boat license	Inland and Coastal waters for small boats (Klein Vaarbewijs 1+2)

Publications

2022 G. J. de Bruin, A. Pereira Barata, C. J. Veenman, H. J. van den Herik, and F. W. Takes. "Fair automated assessment of noncompliance in cargo ship networks". Pending revisions, submitted to *EPJ Data Science*

2021 G. J. de Bruin, C. J. Veenman, H. J. van den Herik, and F. W. Takes. "Supervised temporal link prediction in large-scale real-world networks". *Social Network Analysis and Mining* 11, 80 (2021). DOI: 10.1007/s13278-021-00787-3.

2021 G. J. de Bruin, C. J. Veenman, H. J. van den Herik, and F. W. Takes. "Experimental evaluation of train and test split strategies in link prediction". In: *Proceedings of the International Conference on Complex Networks and Their Applications IX*. Studies in Computational Intelligence 994. 2021, pp. 79–91. DOI: 10.1007/978-3-030-65351-4_7.

2020 G. J. de Bruin, C. J. Veenman, H. J. van den Herik, and F. W. Takes. "Understanding dynamics of truck co-driving networks". In: *Proceedings of the International Conference on Complex Networks and Their Applications VIII*. Studies in Computational Intelligence 882. 2020, pp. 140–151. DOI: 10.1007/978-3-030-36683-4_12.

2019 G. J. de Bruin, C. J. Veenman, H. J. van den Herik, and F. W. Takes. "Understanding Truck Co-Driving Behaviour using Network Analysis". Extended abstract and poster for the 5th International Conference on Computational Social Science

2018 G. J. de Bruin, C. J. Veenman, H. J. van den Herik, and F. W. Takes. "Understanding behavioral patterns in truck co-driving networks". In: *Proceedings of the International Conference on Complex Networks and Their Applications VII*. Studies in Computational Intelligence 813. 2018, pages 223–235. DOI: 10.1007/978-3-030-05414-4_18

2018 Barata, A. P., de Bruin, G. J. et al. Finding Anomalies in Waste Transportation Data with Supervised Category Models. BeNeLearn 2018.

Reviewed conference papers for Multidisciplinary International Symposium on Disinformation in Open Online Media 2019 (2), Mining Actionable Insights from Social Networks 2019 (2) 2020 (1), International Conference on Complex Networks and their Applications 2019 (1), Symposium on Intelligent Data Analysis 2020 (1) and European Conference on Artificial Intelligence 2020 (2).

Education

2017–2023	**PhD**, *Leiden University*, Leiden Institute of Advanced Computer Science.
2015–2017	**Master**, *University of Amsterdam & Free University Amsterdam*, *Analytical Chemistry* .

Internship at: Inspectie Leefomgeving & Transport

Title of thesis: *Efficient compliancy monitoring: Comparison of both airborne and landside sniffing and spectrometric methods to provide direct control on the sulfur emissions of ships.*

Internship at: TNO

Title of thesis: *Possibilities for breath examination in the detection of an in-body explosive*

Subjects of Choice: Machine Learning 1 (6 EC), Mathematica for Physicists (3 EC), Advanced Seperation Sciences (6 EC), Advanced Statistics (6 EC), Chemical Analysis for Forensic Evidence (6 EC), The Analytical Chemist in Industry (6 EC) and Environmental Chemistry (6 EC)

Compulsory courses: Fundamentals of Analytical Science (6 EC), Mass Spectrometry (6 EC), Separation Sciences (6 EC) and Biomolecular Spectroscopy (6 EC)

2012–2015	**Bachelor**, *Universiteit Utrecht*, *Chemistry* .

Received scholarship from the 'Topsector Chemie'

Internships at: Van Wijhe Verf and "Condensed Matter and Interfaces"

Title of thesis: *Nano-thermometry using Lanthanum Phosphates*

2006–2012	**Gymnasium**, *Van Lodenstein College*, Amersfoort, *TTO (Bilingual education)*.

Nature & Technique profile

Sports and interests

Any spare time that I have, I like to spend on making our home smart with all kind of sensors, micro-controllers and smart switches. Apart from our home, my newest project is to make my boat smart as well!

2019–today	Owning a boat: the Hapiness. I like to renovate it, make it smart with all kind of sensors and of course enjoy Netherlands from the water!
2019–today	Playing korfball at Synergo, Utrecht
2016–2019	Organizing 'JIFE': a sport community for youth in Almere Haven
2003–2016	Player, Trainer, Coach and Referee at c.k.v. MIA (korfball)
2013–2014	Organizing Chemistry Sessions for primary school 'De Wartburg', Woudenberg
2011–2012	Providing Korfball Sessions for primary schools

References

At request.