



Luiz Pizzato

PROFILE

AI Leader with 20+ Years of Experience in Data Science and Innovation

With a PhD in Computer Science and over 20 years of experience in machine learning and AI, I've guided multiple organisations through successful AI adoption — unlocking business value and enabling new, innovative opportunities.

Throughout my career — whether in enterprise settings or start-ups — I've consistently focused on identifying strategic opportunities and delivering AI capabilities that drive value for the organisation and its customers. These efforts have led to the creation of many new AI products, patents, research publications, and open-source models.

At Commonwealth Bank, I played a key role in initiating responsible AI practices across the Group, contributing to CBA being ranked the #1 bank globally for Responsible AI in 2024. I also led the creation of AI solutions that protect customers from abuse, support those affected by natural disasters, and enhance customer experience and satisfaction.

WORK EXPERIENCE

10/2024 – present
Sydney, New South Wales,
Australia

Distinguished AI Scientist - General Manager Commonwealth Bank

Currently focused on transformational AI work at CommBank, leading the development of the bank's next generation foundational GenAI models to power enterprise-wide capabilities.

05/2020 – 10/2024
Sydney, New South Wales,
Australia

Centre of Excellence Lead - AI Labs Commonwealth Bank

I lead CommBank's cutting-edge AI team, driving groundbreaking advancements in artificial intelligence. Notable achievements under my leadership include the implementation of early Generative AI systems, such as CommBank Gen.ai Studio, and a variety of other internal solutions. Among our well-known systems are an AI designed to detect abusive transaction descriptions, which helps protect customers from abuse, and a weather data model that provides swift support to customers during natural disasters.

07/2023 – 09/2024
Sydney, New South Wales,
Australia

Data Science CAL Lead Commonwealth Bank

I lead a large number of data scientists across multiple teams delivering modelling and AI solutions throughout CommBank's lines of business. This spans data, technology, operations, finance, risk, and the retail banking system—including teams in home buying, consumer finance, everyday banking, wealth, private banking, contact centres, and branches.

10/2023 – present
Sydney, New South Wales,
Australia

Member of Industry Advisory Board of the School of Computer Science University of Sydney

04/2022 – 10/2023
Sydney, New South Wales,
Australia

Member of Advisory Board for Business Analytics UTS Business School



WORK EXPERIENCE

08/2017 – 05/2020
Sydney, Australia

Head of Data Science, Liquid Studio ANZ Accenture

At Liquid Studio, Accenture's hub for rapid innovation in emerging technologies, I led a small, elite team of developers and data scientists dedicated to delivering cutting-edge data science and machine learning solutions. My role encompassed not only overseeing technical projects but also guiding Accenture clients in understanding the transformative potential of AI for their businesses.

During my tenure, we developed significant intellectual property for the company, including advanced AI algorithms and applications involving fully homomorphic encryption (FHE), a data-sharing platform utilizing FHE, and innovations in adversarial attacks and defense for AI systems. Notably, we also created a robotic DJ that performed at AWS re:Invent 2018 in Las Vegas!

03/2014 – 11/2017
Sydney, Australia

Director Octosocial Labs

We used my experience in developing people-matching algorithms to create tech products to help people to find new friends. We founded Octosocial Labs because there was no good existing personalised solution that helps people find new friends or simply help people find a supportive person for when they are in need.

We rapidly run experiments and change our products in many ways during the existence of the company. We developed two iPhone apps and have obtained a range of data about how people find friends as well as how they seek help when in difficult times.

05/2016 – 07/2017
Sydney, Australia

Senior Data Scientist Commonwealth Bank

As a senior member of the machine learning team within the Analytics and Information (A&I) group, I guided several internal clients in developing AI solutions for complex business challenges. I was responsible for overseeing a data science portfolio that spanned all areas of business banking (BB), from small and medium enterprises to large institutional clients (IB&M).

A key achievement during this time was my contribution to the design and development of the machine learning capabilities within DailyIQ, CBA's highly successful customer-facing business banking analytics tool.

06/2016 – 09/2016
Hong Kong

Data Science Immersive Instructor General Assembly

I had the privilege of teaching General Assembly's first Data Science Immersive course in Hong Kong. This intensive, 12-week program (8 hours per day) presented significant challenges, but the outcomes were highly rewarding. By the end of the course, I had successfully trained 12 highly skilled data scientists, equipping them with the ability to tackle complex problems across various domains.

11/2012 – 05/2016
Sydney, Australia

Principal Consultant Pizzato Data Science Consultancy

I provided consultancy services for organisations on AI, machine learning and the intelligent processing and analysis of large amounts of data from diverse sources and formats.

02/2015 – 03/2016
Sydney, Australia

Senior Data Scientist 1-Page

As the founding member of the 1-Page Data Science team, I played a key role in architecting proprietary algorithms for our core products, including the hiring and assessment platform,



WORK EXPERIENCE

the innovation platform, and our sourcing product, Source.hr.

I was responsible for designing and implementing our analytics API, which serves as the backbone for all natural language processing (NLP) tasks across our products.

Additionally, I successfully delivered a high-impact solution within our innovation platform for one of the world's largest financial institutions. This solution enabled the analysis of thousands of documents with human-level accuracy.

03/2012 – 03/2014
Sydney, Australia

Research Fellow University of Sydney

03/2009 – 03/2012
Sydney, Australia

Postdoctoral researcher University of Sydney

During my tenure at The University of Sydney, I spearheaded cutting-edge R&D initiatives for the Smart Services CRC's industry partners while also contributing to academia through the supervision of over a dozen students and delivering lectures as needed. In collaboration with industry leaders such as Fairfax Media and Woolworths, I contributed to three pivotal research projects:

1. Personalisation Project: I played a crucial role in pioneering the field of "reciprocal recommender systems" by developing and publishing the first-ever online dating recommender systems. These systems, driven by machine learning and AI, were designed to identify the best matches for users. My responsibilities included creating advanced recommender algorithms, authoring research papers and detailed reports, and coordinating a team of four full-time researchers.
2. Multi-Channel Content Delivery Project: I applied data mining algorithms to enhance mobile personalisation, ensuring that content was delivered in a tailored manner across multiple platforms.
3. New Media Services: I led the development of sophisticated algorithms for personalized news recommendations, tailored for a major Australian media company.



EDUCATION

01/2004 – 01/2008
Australia

Computer Science - Artificial Intelligence | PhD Macquarie University

Thesis: Using Linguistically Motivated Features in Document Retrieval for Question Answering

01/2001 – 01/2003
Porto Alegre, Brazil

Computer Science - Artificial Intelligence | Master of Science Pontificia Universidade Católica do Rio Grande do Sul

Thesis: A Multi-thesaurus Structure Applied to Information Retrieval.

1995 – 2000
Porto Alegre, Brazil

Computer Science | Bachelor Pontificia Universidade Católica do Rio Grande do Sul

Final project title: A Virtual Environment for Distance Learning.



LANGUAGES

English

Portuguese



PATENTS

- 07/2020 **Cryptographic datashare control for blockchain Worldwide Patent**
<https://patents.google.com/patent/US11297043B2/>
- 07/2024 **Systems and methods for translating non-natural language data into natural language data IP Australia**
<https://patents.google.com/patent/AU2024901967A0/>
- 03/2024 **A vector embedder for non-natural language data IP Australia**
<https://ipsearch.ipaustralia.gov.au/patents/2024202048>



PUBLICATIONS

- 07/2025 **Synthetic Voices: Evaluating the Fidelity of LLM-Generated Personas in Representing People's Financial Wellbeing**
33rd ACM International Conference on User Modeling, Adaptation and Personalization - UMAP
- 01/2024 **Do LLM Personas Dream of Bull Markets? Comparing Human and AI Investment Strategies Through the Lens of the Five-Factor Model**
NeurIPS 2024 Workshop on Open-World Agents
<https://openreview.net/forum?id=b2lFzaGlan>
- 01/2023 **Detection of Abuse in Financial Transaction Descriptions Using Machine Learning**
ArXiv (preprint) - Computation and Language (cs.CL); Computers and Society (cs.CY); Machine Learning (cs.LG)
<https://doi.org/10.48550/arXiv.2303.08016>
- 01/2022 **PD-SRS: Personalized Diversity for a Fair Session-Based Recommendation System**
Service-Oriented Computing. ICSOC 2022
https://doi.org/10.1007/978-3-031-20984-0_23
- 01/2022 **A Multi-Stakeholder Recommender System for Rewards Recommendations**
RecSys '22: Proceedings of the 16th ACM Conference on Recommender Systems
<https://doi.org/10.1145/3523227.3547388>
- 01/2022 **Fair-SRS: A Fair Session-based Recommendation System**
WSDM '22: Proceedings of the Fifteenth ACM International Conference on Web Search and Data Mining
<https://doi.org/10.1145/3488560.3502191>
- 01/2021 **A fairness-aware multi-stakeholder recommender system**
World Wide Web 24
<https://doi.org/10.1007/s11280-021-00946-8>

- 01/2021 **Reciprocal Recommender Systems: Analysis of state-of-art literature, challenges and opportunities towards social recommendation**
Information Fusion Volume 69, Pages 103-127
<https://doi.org/10.1016/j.inffus.2020.12.001>
- 01/2020 **An Ethical Multi-Stakeholder Recommender System Based on Evolutionary Multi-Objective Optimization**
2020 IEEE International Conference on Services Computing (SCC)
<https://doi.org/10.1109/SCC49832.2020.00074>
- 01/2020 **Beyond Personalization: Research Directions in Multistakeholder Recommendation**
User Modeling and User-Adapted Interaction. 30, pages 127–158
<https://doi.org/10.1007/s11257-019-09256-1>
- 01/2017 **VAMS 2017: Workshop on Value-Aware and Multistakeholder Recommendation**
Proceedings of the Eleventh ACM Conference on Recommender Systems (RecSys '17). ACM, New York, NY, USA, 378-379.
<https://doi.org/10.1145/3109859.3109957>
- 01/2016 **People Recommendation Tutorial**
In Proceedings of the 10th ACM Conference on Recommender Systems (RecSys '16). ACM, New York, NY, USA, 431-432.
<https://doi.org/10.1145/2959100.2959196>
- 01/2015 **Proceedings of the 6th International Workshop on Social Recommender Systems (SRS 2015)**
In conjunction with 21st ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2015)
<http://www.comp.hkbu.edu.hk/~lichen/srs2015/>
- 01/2013 **Beyond friendship: the art, science and applications of recommending people to people in social networks**
In Proceedings of the 7th ACM conference on Recommender systems (RecSys '13). ACM, New York, NY, USA, 495-496.
<http://dl.acm.org/citation.cfm?doid=2507157.2508064>
- 01/2012 **Proceedings of the Second Workshop on Community Mining and People Recommenders**
ECML/PKDD 2012, Bristol, UK, September 28, 2012
<http://sydney.edu.au/engineering/it/~pizzato/publications/pdf/COMMPER2012.pdf>
- 01/2012 **Proceedings of the 1st International Workshop on TV and multimedia personalization (TVM²P 2012)**
UMAP 2012, Montreal, Canada
<http://ceur-ws.org/Vol-872/#tvm2p2012>
- 01/2012 **The effect of suspicious profiles on people recommenders**
Proceedings of the 20th International Conference on User Modeling, Adaptation and Personalization (UMAP 2012). Montreal, Canada. LNCS 7379, pp. 225--236.
Springer, Heidelberg
http://dx.doi.org/10.1007/978-3-642-31454-4_19



01/2012

Explicit and implicit user preferences in online dating.
New Frontiers in Applied Data Mining, volume 7104 of Lecture Notes in Computer Science, pages 15–27. Springer Berlin / Heidelberg

http://dx.doi.org/10.1007/978-3-642-28320-8_2

01/2012

Recommending people to people: The nature of reciprocal recommenders with a case study in online dating
User Modeling and User-Adapted Interaction (UMUAI) -- The Journal of Personalization Research

<http://dx.doi.org/10.1007/s11257-012-9125-0>

01/2012

Using Wikipedia and Conceptual Graph Structures to Generate Questions for Academic Writing Support
IEEE Transactions on Learning Technologies, pp. 251-263, Third Quarter, 2012

<http://doi.ieeecomputersociety.org/10.1109/TLT.2012.5>