



Installation Publication for  
Professor József Mezei

I, József Mezei, was born on the 18th of January, 1985 in Hungary. Upon completing my high school education at Kossuth Lajos Gimnázium, Cegléd, I embarked on my academic journey. Following my fascination and passion with mathematics, shaped by an inspiring high school teacher, led me to an academic career that started at the Eötvös Loránd University in Budapest, where I achieved my MSc in Mathematics with distinction in 2008, with a special focus on statistics, financial and insurance mathematics. After moving to Finland, I was conferred Doctor of Science in Business Administration and Economics in December 2011, graduating as a student of Turku Center for Computer Science at the Department of Information Technologies, Åbo Akademi University in Turku. My doctoral thesis, entitled 'A Quantitative View on Fuzzy Numbers', focused on developing decision-making models making use of information in the form of fuzzy sets.

My research in academia has focused on developing decision support tools to be used in organizations, in particular in the presence of imprecise information. My post-doctoral studies provided me with the opportunity to work alongside esteemed professionals in the field. I was fortunate to be a part of the research group of Professor Christer Carlsson at the Institute for Advanced Management Systems Research at Åbo Akademi University. Later, I worked as a post-doctoral researcher at Lappeenranta University of Technology under the leadership of Professor Mikael Collan. During this period, I had collaborated with dozens of researchers from different academic domains (business, economics, finance, health care, engineering) and from universities from various countries (Finland, Italy, Spain, Hungary, and the Netherlands). These experiences refined my analytical prowess and broadened my perspective on the practical applications of fuzzy logic.

During my early career, I found myself transitioning between academia and industry, always in roles that required a deep analytical perspective. My time as a Senior Data Scientist, in particular my experience working in developing solutions for health care in Avaintec Oy, enhanced my knowledge about the practicalities of applying machine learning models. These experiences in the industry have constantly reminded me of the importance of producing relevant results that can have a tangible impact on real-world problems. With over 90 peer-reviewed and co-authored articles published in journals, conferences, and edited volumes, I have tried to disseminate my knowledge and findings to a broader audience. Collaboration has always been at the heart of my endeavors. I relish the opportunity to work with individuals from diverse backgrounds and various domains. These collaborations, I believe, are where true innovations and breakthroughs emerge.

In 2022, I was honored with the position of Professor in Business Administration and Data Analytics at Åbo Akademi University. A year later, in 2023, I took on the responsibility as the Head of the Governance of Digitalization Master's programme. These roles not only allow me to share my insights with the next generation but also help shape the future leaders of the digital age. I am driven by the potential of what is yet to be discovered and the promise of what we can achieve together in the world of data and analytics.

## **Personal Information**

Born on January 18, 1985, in Cegléd, Hungary

Family: Married to Jie Guo, children Annabelle (born 2014), Emilia (born 2019)

## **Degrees, Docent Title**

2011: Doctor of Science in Business Administration and Economics (major: Information Systems), Åbo Akademi University

2008: MSc in Mathematics (Financial and Insurance Mathematics), Eötvös Loránd University, Hungary

2013: Docent in Information Systems (Soft Computing and Decision Analytics), Åbo Akademi University

2013: Docent in Finance (Real option valuation and mathematical modeling in finance), LUT Lappeenranta-Lahti University of Technology

## **Employment**

2022–: Professor in Information Systems, Faculty of Social Sciences, Business and Economics, and Law, Åbo Akademi University

2018–2022: Associate Professor in Information Systems, Faculty of Social Sciences, Business and Economics, Åbo Akademi University

2017–: Senior Data Scientist, Avaintec Oy

2016–2017: Senior Data Scientist, F-Secure

2016–2017: Research Fellow, School of Business and Management, Lappeenranta University of Technology

2015–2016: Researcher, RiskLab Finland, Arcada University of Applied Sciences

2013–2016: Postdoctoral Researcher, Faculty of Social Sciences, Business and Economics, Åbo Akademi University

2012–2013: Postdoctoral Researcher, IAMSR, Åbo Akademi University

## **Academic Merits**

Reviewer for three doctoral dissertations (LUT University, University of Jyväskylä)

Expert in the evaluation process for docent title (LUT University)

Member of several evaluation boards (ÅA)

Organizer/co-chair of session and mini-tracks in academic conference (HICSS)

Reviewer of over 100 international article manuscripts

## Supervision and leadership

Supervisor for approx. annually 4 Master's theses, total 28 since 2015

Main supervisor for 5 ongoing doctoral theses. Assistant supervisor for ten doctoral theses (three of which graduated)

Head of the international Master's programme Governance of Digitalization since 2023

## Selected academic publications

1. Matteo Brunelli and **József Mezei** (2013). How different are ranking methods for fuzzy numbers? A numerical study, *International Journal of Approximate Reasoning*, 54(5), 627–639.
2. Shahrokh Nikou and **József Mezei** (2013). Evaluation of Mobile Services and Substantial Adoption Factors with Analytic Hierarchy Process (AHP), *Telecommunications Policy*, 37(10), 915–929.
3. Kaj-Mikael Björk and **József Mezei** (2014). A Fuzzy MILP-model for the Optimization of Transports, *Journal of Intelligent & Fuzzy Systems*, 26(3), 1349–1361.
4. Anna Sell, **József Mezei** and Pirkko Walden (2014). An Attitude-Based Latent Class Segmentation Analysis of Mobile Phone Users, *Telematics and Informatics*, 31(2), 209–219.
5. Peter Sarlin, Shahrokh Nikou, **József Mezei**, and Harry Bouwman (2015). Visual conjoint analysis (VCA): a topology of preferences in multi-attribute decision making, *Quality & Quantity*, 49(1), 385–405.
6. **József Mezei** and Kaj-Mikael Björk (2015). An economic production quantity problem with backorders and fuzzy cycle times, *Journal of Intelligent & Fuzzy Systems*, 28(4), 1861–1868.
7. **József Mezei**, Robin Wikström and Christer Carlsson (2015). Aggregating linguistic expert knowledge in type-2 fuzzy ontologies, *Applied Soft Computing*, 35(1), 911–920.
8. Shahrokh Nikou, **József Mezei** and Peter Sarlin (2015). A Process View to Evaluate and Understand Preference Elicitation, *Journal of Multi-Criteria Decision Analysis*, 22(5-6), 305–329.
9. Robin Wikström and **József Mezei** (2015). Intrusion Detection with Type-2 Fuzzy Ontologies and Similarity Measures, in: Yager, Ronald R., Reformat, Marek Z., Alajlan, Naif (Eds.), *Intelligent Methods for Cyber Warfare*, *Studies in Computational Intelligence*, Vol. 563/2015, 151–172.
10. Ajay Byanjankar, Markku Heikkilä, and **József Mezei** (2015). Predicting Credit Risk in Peer-to-Peer Lending: A Neural Network Approach. In: 2015 IEEE Symposium Series on Computational Intelligence: IEEE Symposium on Computational Intelligence for Financial Engineering & Economics, South Africa, IEEE, pp. 719-725.
11. Kaj-Mikael Björk and **József Mezei** (2016). A heuristical solution method to separable nonlinear programming problems, *International Journal of Mathematics in Operational Research*, 9(2), 230–342.

12. **József Mezei** and Peter Sarlin (2016). Aggregating expert knowledge for the measurement of systemic risk, *Decision Support Systems*, 88, 38–50.
13. **József Mezei** and Matteo Brunelli (2016). Decision Analytics and Soft Computing with Industrial Partners: A Personal Retrospective, in: M. Collan, M. Fedrizzi, J. Kacprzyk (Eds.), *Fuzzy Technology – Present Applications and Future Challenges*, Springer-Verlag, *Studies in Fuzziness and Soft Computing*, vol. 335/2016, 193–205.
14. Christer Carlsson, Markku Heikkilä, and **József Mezei** (2016). Fuzzy Entropy Used for Predictive Analytics, in: *Studies in Fuzziness and Soft Computing*, Vol. 341, Cengiz Kahraman et al. (Eds): *Fuzzy Logic in Its 50th Year*, Chapter 9, 187–209.
15. Juan Antonio Morente-Molinera, **József Mezei**, Christer Carlsson, and Enrique Herrera-Viedma (2017). Improving supervised learning classification methods using multi-granular linguistic modelling and fuzzy entropy, *IEEE Transactions on Fuzzy Systems*, 25(5), 1078–1089.
16. Yong Liu, **József Mezei**, Vassilis Kostakos and Hongxiu Li (2017). Applying configurational analysis to IS behavioural research: a methodological alternative for modeling combinatorial complexities, *Information Systems Journal*, 27(1), 59–89.
17. Matteo Brunelli and **József Mezei** (2017). An inquiry into approximate operations on fuzzy numbers, *International Journal of Approximate Reasoning*, 81, 147–159.
18. **József Mezei**, Matteo Brunelli and Christer Carlsson (2017). A fuzzy approach to using expert knowledge for tuning paper machines, *Journal of the Operational Research Society*, 68(6), 605–616.
19. **József Mezei** and Peter Sarlin (2018). RiskRank: Measuring interconnected risk, *Economic Modelling*, 68, 41–50.
20. **József Mezei** and Shahrokh Nikou (2018). Fuzzy optimization to improve mobile health and wellness recommendation systems, *Knowledge-Based Systems*, 142, 108–116.
21. Shahrokh Nikou, **József Mezei** and Malin Brännback (2018). Digital natives? intention to interact with social media: Value systems and gender, *Telematics and Informatics*, 35(2), 421–435.
22. **József Mezei** and Matteo Brunelli (2018). A closer look at the relation between orness and entropy of OWA functions, in: M. Collan, M. Fedrizzi, J Kacprzyk (Eds.), *Soft Computing Applications for Group Decision-making and Consensus Modeling*, Springer-Verlag, *Studies in Fuzziness and Soft Computing*, vol. 357/2018, 201–211.
23. **József Mezei** and Shahrokh Nikou (2018). On the use of configurational analysis in entrepreneurial research, in: M. Brännback, A. L. Carsrud (Eds.), *A Research Agenda for Entrepreneurial Cognition and Intention*, *Elgar Research Agendas series*, 142–160.
24. Juan Antonio Morente-Molinera, Francisco Javier Cabrerizo, **József Mezei**, Christer Carlsson, and Enrique Herrera-Viedma (2020). A dynamic group decision making process for high number of alternatives using hesitant Fuzzy Ontologies and sentiment analysis, *Knowledge-Based Systems*, 195: 105657.

25. Francisco Javier Cabrerizo, Markku Heikkilä, **József Mezei**, Juan Antonio Morente-Molinera, Enrique Herrera-Viedma, and Christer Carlsson (2020). Granular fuzzy pay-off method for real option valuation, *Expert Systems with Applications*, 159: 113597.
26. Robert Nygård and **József Mezei** (2020). Automating lead scoring with machine learning: An experimental study. In: *Proceedings of the Annual Hawaii International Conference on System Sciences (HICSS 53)*, Hawaii, USA.
27. **József Mezei**, Anna Sell and Pirkko Walden (2020). Digital Coaching - An Exploratory Study on Potential Motivators. In: *Proceedings of the Annual Hawaii International Conference on System Sciences (HICSS 53)*, Hawaii, USA.
28. Ajay Byanjankar, **József Mezei**, and Markku Heikkilä (2021). Data-driven optimization of peer-to-peer lending portfolios based on the expected value framework, *Intelligent Systems in Accounting, Finance and Management*, 28(2), 119–129.
29. Gang Yu, Mohammad Tabatabaei, **József Mezei**, Qianhui Zhong, Siyu Chen, Zheming Li, Jing Li, LiQi Shu, and Qiang Shu (2022). Improving Chronic Disease Management for Children with Knowledge Graphs and Artificial Intelligence, *Expert Systems with Applications*, 201, 117026.
30. Yanya Ruan and **József Mezei** (2022). When Do AI Chatbots Lead to Higher Customer Satisfaction than Human Frontline Employees in Online Shopping Assistance? Considering Product Attribute Type, *Journal of Retailing and Consumer Services*, 68, 103059.
31. Shahrokh Nikou, **József Mezei**, Candida Brush and Birgitte Wraae (2022). Factors influencing entrepreneurship educators' pedagogical choices – a configurational approach, *Sustainability*, 14(19), 12248.
32. Shahrokh Nikou, **József Mezei**, Eric W. Liguori and Ayman El Tarabishy (2022). FsQCA in entrepreneurship research: Opportunities and best practices, *Journal of Small Business Management*, 1–18.
33. Laleh Davoodi and **József Mezei** (2022). A Comparative Study of Machine Learning Models for Sentiment Analysis: Customer Reviews of E-commerce Platforms. In: *Proceedings of the 35th Bled eConference, Bled*, 14 pages.