Academic Curriculum Vitae

Personal details			
Full name		Jeff	Nijsse
Present position	Senior Lecturer		
Organisation/Employer	Auckland University of Technology		
Contact Address	30/1 Piriti Drive	Auckland	New Zealand
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Personal website	*https://academics.aut.ac.nz/jeff.nijsse*		
LinkedIn	*https://www.linkedin.com/in/jeffnijsse/*		
GitHub	*https://github.com/millecodex*		
Twitter	*https://twitter.com/Japple*		
YouTube	*https://www.youtube.com/channel/UCUok4o6qOyamYN-rhDZwEpg*		

Ideal Position(s)

Data Scientist, Data Analytics, Blockchain Research, General Research

Academic qualifications

2023 – PhD (Candidate) Computer Science - Blockchain Health & Data Analytics, Auckland University of Technology, New Zealand

2012 – MASc. Aerospace Engineering - Rocket Combustion, University of Toronto Institute for Aerospace Studies, Canada

2009 – BASc. Mechanical Engineering, University of Windsor, Canada

Professional positions held

2020 - present Senior Lecturer, Department of Mathematical Sciences, Auckland University of Technology, New Zealand

2014 - 2020 Lecturer, Department of Mathematical Sciences, Auckland University of Technology, New Zealand

2016 - 2018 Deputy Programme Leader, Certificate in Science and Technology Auckland University of Technology, New Zealand

Present research/professional specialty

Overview

Jeff is interested in all things to do with Bitcoin, cryptocurrencies, and blockchain technology. From the base layer protocols of consensus methods to the social applications of money and finance blockchain is a multidisciplinary field that blends mathematics, computer science, economics, and social science into an exciting and ground-breaking new field of study.

Overview (Con't)

Jeff has has developed two blockchain courses for undergraduate students *COMP726 – Blockchain and Cryptocurrency Technology* and masters students COMP842 – *Applied Blockchains and Cryptocurrencies* that have been very popular. They are the first blockchain specific university level courses in New Zealand.

In 2018 he won the Vice Chancellor's Award in Teaching Excellence and was nominated for the National Tertiary Teaching Excellence Awards in 2019. Jeff is a board member of BlockchainNZ, podcast host, Fellow of the Higher Education Academy, member of AUT's STEM-TEC group, as well as an IEEE Blockchain Technical Community member.

Research Interests

⛓ Blockchain & ₿ Cryptocurrencies Including: Bitcoin, Ethereum, digital assets, DeFi (decentralised finance), CBDC (central bank digital currencies), tokenomics, and economics.

💻 Computer Science
Including: distributed systems; consensus; blockchain technology

University Teaching Summary

⛓ Blockchain & ₿ Cryptocurrencies
⚛ Physics
∞ Calculus
∮ Engineering Mathematics
⚿ Cryptography & Network Security

Total years crypto & blockchain experience	*5*

Professional distinctions and memberships
Appointments and memberships
2021, Bloxberg Blockchain for Science AUT/NZ representative, Max Planck Digital Library
2021, Board Member, Blockchain New Zealand
2019, CMSS Member, Centre for Mathematical Social Science, University of Auckland
2019, STEMpreneurs Coordinator, STEM-TEC, Auckland University of Technology
2019, Organizing Committee, DELTA Undergraduate Maths and Stats 2021
2019, Committee Member, The 19th Security, Privacy and Trust Conference
2018, STEM-TEC Member, Auckland University of Technology
2018, Blockchain NZ Member, Blockchain NZ
2018, Blockchain Technical Community, IEEE
2016-2019, Deputy Programme Leader, Certificate in Science and Technology
2015, AMA Member, Auckland Mathematical Association
Awards
2019, National Tertiary Teaching Excellence Awards Nominee, Ako Aotearoa New Zealand
2018, Vice Chancellor's Award for Teaching Excellence, AUT
2018, Ako Aronui Fellow, Higher Education Academy

Research publications

Peer-reviewed journal articles

Nijsse, J., & Litchfield, A. (2020). A taxonomy of blockchain consensus methods. *Cryptography*, *4*(4). doi:10.3390/cryptography4040032

Peer-reviewed conference proceedings

Nijsse, J., Litchfield, A. (2023, in press). Identifying Developer Engagement in Open Source Software Blockchain Projects through Factor Analysis. In proceedings of Hawaii International Conference on Information Systems, Honolulu, Jan 3-7 2023.

Nijsse, J. (2022). Mining GitHub to identify open-source software health in blockchain projects. In H. Abraham (Ed.), *Rangahau Aranga: AUT Graduate Review* Vol. 1. Auckland. doi:10.24135/rangahau-aranga.v1i1.84

Nijsse, J., & Lee, Y.C. (2021, November 22-25). Kinematics adventures in desmos. Herenga DELTA 2021: The 13th Southern Hemisphere Conference on the Teaching and Learning of Undergraduate Mathematics and Statistics, Auckland, New Zealand.

Lee, Y.C., & **Nijsse, J.** (2021, November 22-25). Challenges and strategies: Coping with the new realities of a covid-19 classroom assessment. Herenga DELTA 2021: The 13th Southern Hemisphere Conference on the Teaching and Learning of Undergraduate Mathematics and Statistics, Auckland, New Zealand.

Nijsse, J. (2019). Coding tutorials: Using Jupyter and Scratch to teach concepts in blockchain. In J. Pettigrew, L. Rylands, D. Shearman, & A. Yeung (Eds.), *Proceedings of the 12th Delta Conference on the teaching and learning of undergraduate mathematics and statistics* (pp. 146). Fremantle. doi:10.26183/5d5f53ed9c926

Nijsse, J., Choudhary, R., Alexander, J., & Spooner, K. (2019). Reflection, introspection, and transformation. In J. Pettigrew, L. Rylands, D. Shearman, & A. Yeung (Eds.), *Proceedings of the 12th Delta conference on the teaching and learning of undergraduate mathematics and statistics* (pp. 122). Fremantle. doi:10.26183/5d5f53ed9c926

Nijsse, J. (2018). Smart Physics: Teaching Physics with smart-carts and smart-phones. In M. M. Dullius (Ed.), *DELTA '17 Proceedings: 11th Southern Hemisphere Conference on the Teaching and Learning of Undergraduate Mathematics and Statistics* (pp. 182). Gramado. Retrieved from https://www.univates.br/media/evento/delta/proceedings.pdf

Oral Presentations

Nijsse, J. (2022). Blockchain Macro Trends and Use Cases. Executive Workshop at Tech Futures Lab. Auckland, New Zealand.

Nijsse, J. (2022). Blockchain Industry Challenges. Executive Workshop at Tech Futures Lab. Auckland, New Zealand.

Nijsse, J. (2018). Bitcoin 101 - What are cryptocurrencies. Auckland, New Zealand.