

Aleksa Vujičić

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Summary

- Recent PhD mathematician with experience in data modelling, software development, and university teaching. Strong background in analytical problem solving, statistical modelling, and software development, including Java, SQL, and Python. Experienced at communicating complex technical ideas to diverse audiences. Seeking opportunities in analytics, machine learning, or software engineering.

Education

- 2020 – 2025 **Ph.D. Pure Mathematics** at University of Waterloo.
- 2018 – 2019 **M.Sc. Mathematics (Distinction)** at Victoria University of Wellington.
- 2013 – 2017 **B.Sc. (First Class Hons, A+) Mathematics** at Victoria University of Wellington.

Skills

- Programming
 - Strong background in Java, with additional experience in Python, R, SQL and Perl.
 - Comfortable with Linux: primary operating system for 20 years.
 - Proficient with Git.
- Mathematical
 - Research background in harmonic analysis, Fourier analysis, and abstract algebra.
 - Strong analytical and problem-solving skills.
- Communication
 - Native English speaker; conversational Serbian.
 - Effective educator with strong evaluations from students.

Employment History

- 2019 – 2020 **Data Modeller** at Open Polytechnic (*Lower Hutt, New Zealand*).
Developed predictive models for student success to help guide students toward effective learning strategies. Used SQL for querying databases and R for statistical analysis and data visualisation.
- 2013 – 2014 **Developer (Summer Internship)** at Catalyst IT (*Wellington, New Zealand*).
Developed backend web services using Java (Spring Framework), including a custom web-form builder for business clients.
- 2022 – 2023 **Course Instructor** at University of Waterloo (*Waterloo, ON, Canada*).
Delivered two undergraduate-level courses. Responsible for preparing lectures and assessments, running office hours, and handling student enquiries.
- 2015 – 2025 **Teaching Assistant** at Victoria University of Wellington (*Wellington, New Zealand*) & University of Waterloo (*Waterloo, ON, Canada*).
Responsible for marking assessments, proctoring exams, running tutorials and providing office hours. Supported students across a range of undergraduate mathematics courses with varying size and level.

Research Publications

- 1 Aleksa Vujičić. “Characterisations of pseudo-amenability”. In: *Studia Mathematica* 262.2 (2022).

Two additional publications are in progress, with preprints expected to be available by July 2026.

Other Projects

- 2025  **Directed Reading Program** at University of Waterloo.
Supervised students from underrepresented groups in a mathematical reading program. Responsible for designing a suitable project for students, and mentoring them throughout.
- 2017 – 2019  **Game Modding Development.**
A personal project in Java which altered the core gameplay of Minecraft into a custom minigame format.
- Grew into a complex software project; planning was necessary so that individual components worked together smoothly.
 - Primarily solo-developed; Git was used to manage history and to include contributions from others.
 - Interfaced with existing modding APIs and libraries, though occasionally required decompiling and deobfuscating original source code.

Scholarships and Awards

- 2020 – 2024  **UW Graduate Scholarship** at University of Waterloo.
- 2018  **Victoria University Medal** at Victoria University of Wellington.
-  **Victoria Master's Scholarship** at Victoria University of Wellington.
- 2017  **VUW Graduate Award** at Victoria University of Wellington.
- 2013 – 2015  **Victoria Excellence Scholarship** at Victoria University of Wellington.
- 2008  **Prize Award** for the Australian Mathematics Competition.

Interests

-  Puzzles: particularly variant sudokus and crosswords.
-  Music: piano playing (10+ years).
-  Fitness: running, squash, high-intensity interval training (HIIT), and yoga.
-  Language learning: Japanese.