Alexander Elzenaar

aelz176@aucklanduni.ac.nz • +64 027 301 7585 • https://aelzenaar.github.io/

EDUCATION The University of Auckland, New Zealand

MSc. in Mathematics

2021 – ongoing

- Thesis topic: Deformation spaces of Kleinian groups
- · Advisors: Distinguished Prof. Gaven Martin (NZ Inst. of Adv. Study, Massey Uni.), Dr. Jeroen Schillewaert

■ BSc. (hons) in Mathematics with First Class Honours

Jan 2020 - Dec 2020

- Dissertation: Toric varieties
- Advisor: Dr. Jeroen Schillewaert

• Certificate in Languages

Jul 2019 – May 2020

- Russian and Ancient Egyptian
- BSc. in Mathematics

Dec 2016 – Nov 2019

- Between 2016 and 2019, I was enrolled in a conjoint Mathematics (BA)/Physics (BSc) degree
- Exchange student at the University of Toronto, 2018 fall semester

The University of Canterbury, New Zealand

STAR programme

2016

· First year university mathematics program for secondary school students

RESEARCH EXPERIENCE

The University of Auckland, New Zealand

• Research assistant (Professional Casual Staff)

2020 – ongoing

- Studying properties of the real algebraic variety of spherical (t,t)-designs
- Supervisor: Dr. Shayne Waldron
- Summer research project in Mathematics

Dec 2019 – Feb 2020

- Project: Numerical construction of spherical (t, t)-designs
- Advisor: Dr. Shayne Waldron

TEACHING AND MARKING EXPERIENCE

The University of Auckland, New Zealand

Tutor and marker in the Department of Mathematics

2019 – ongoing

- Tutoring: single- and multi-variate calculus; linear algebra; mathematics for computer science; computational mathematics; mathematics for non-mathematicians (infinities, topology, fractals); real analysis
- Marking: As for tutoring, with the addition of complex calculus, and logic and proofwriting.
- In addition, some work editing and expanding the undergraduate linear algebra coursebook.

AWARDS & SCHOLARSHIPS

- University of Auckland Department of Mathematics Student Research Conference prize
 2021
- University of Auckland Postgraduate Honours / PG Diploma Scholarship

2020 Dec 2019 – Feb 2020

University of Auckland Summer Research ScholarshipUniversity of Auckland Faculty of Arts Deans List

2015

2017

NZQA Outstanding Scholar Award

2016

Limited to top 40–60 secondary school students in New Zealand

OTHER WORK EXPERIENCE

MyTuition

Secondary school tutor
 Mathematics, physics, chemistry, geography

2017 - 2019

[2021-07-22]