# lexander Elzenaar

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

#### **EDUCATION** The University of Auckland, New Zealand

MSc. in Mathematics

2021 – ongoing

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

• 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 Faculty of Arts Deans List

2017

NZQA Outstanding Scholar Award

2016

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

University of Auckland Summer Research Scholarship

# OTHER WORK **EXPERIENCE**

# MyTuition

 Secondary school tutor Mathematics, physics, chemistry, geography 2017 - 2019

[2021-06-28]