

SAM GILMOUR

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EDUCATION

Massachusetts Institute Of Technology **Cambridge, MA**
PhD, Operations Research. GPA 5.0 / 5.0 Sep 2018 – Sep 2023
Relevant Coursework: Linear, nonlinear, robust, integer optimization. Network models. Resilient networks.
Machine learning. Applied probability.

University Of Auckland **Auckland, New Zealand**
BE / BSc, Operations Research / Computer Science / Statistics. GPA: 9.0 / 9.0 Mar 2013 – Nov 2017
Graduated first in class. GRE: 170 / 170 quantitative, 167 / 170 verbal, 5.5 / 6.0 analytical

RESEARCH EXPERIENCE

Massachusetts Institute Of Technology **Cambridge, MA**
Graduate Research Assistant Sep 2018 – Present

- Modelled and optimized societal systems for allocating scarce resources using a scoring rule, with motivation from organ allocation, public housing and public school admission.
- Modelled and optimized policymaker interventions in network congestion games.
- Worked in a team that developed models for predicting key indicators of the COVID-19 pandemic, used for decision support by the office of the Rhode Island Governor.

University Of Auckland **Auckland, New Zealand**
Research Assistant Jan 2018 – Aug 2018

- Developed Excel add-in for running and visualizing stochastic simulations, and contributed to OpenSolver Excel add-in for streamlining the construction of optimization models.
- Created teaching and learning resources for courses in the core undergraduate engineering curriculum.

Undergraduate Researcher Mar 2016 – Nov 2016

- Applied deep neural networks and computer vision techniques to segment biological structures in MRIs. Part of a pipeline using different imaging modalities to automatically generate CFD models of patients.

ADDITIONAL EXPERIENCE

Massachusetts Institute Of Technology **Cambridge, MA**
Teaching Assistant Feb 2019 – Dec 2019

- Developed recitation materials, wrote exam questions and held weekly office hours for a first-year PhD optimization class and a large core MBA class. Evaluation score: 6.9 / 7.0.
- Taught a 3-hour session on data wrangling, regression and classification in R for PhD and Masters students.

SKILLS

Programming languages: Julia, Python, R, C, Java
Libraries: Gurobi, CPLEX, NumPy, Pandas, tidyverse, ggplot
Software and Tools: Git, GitHub, Linux

INTERESTS

Running, hiking, rock climbing, and being outdoors. Also, making non-circular homemade pizzas.