SAM GILMOUR

sgilmour@mit.edu
+1 (617) 259-7287
Citizenship: United Kingdom, New Zealand

sgilm.github.io
github.com/sgilm
linkedin.com/in/sam-gilmour

EDUCATION

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

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

EXPERIENCE

Massachusetts Institute of Technology   **Cambridge, MA, USA**
Graduate Research Assistant   Sep 2018 – June 2023
- 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.
- Developed a novel epidemic model to estimate the effectiveness of at-home testing programs during the COVID-19 pandemic. Specific application to the Greek government's nationwide program.
- **Research papers:** sgilm.github.io/research

DoorDash   **San Francisco, CA, USA**
Operations Research Scientist Intern   May 2022 – Aug 2022
- Developed an efficient simulation model for rapidly prototyping different batching strategies that combine deliveries on the same vehicle.
- Contributed to bugfixes and modules of the production codebase relating to the vehicle routing problem.

University of Auckland   **Auckland, New Zealand**
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, USA**
Teaching Assistant   Feb 2020 – Dec 2020, Sep 2022 – Dec 2022
- 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.
- Volunteered to teach sessions on data science and software engineering for PhD and Masters students.

SKILLS

Programming languages: Julia, Python, R, Kotlin
Libraries: TensorFlow, NumPy, SciPy, Pandas, tidyverse, ggplot
Software and Tools: Git, GitHub, Linux, Gurobi

INTERESTS

Running, hiking, snowboarding, and being outdoors. Also, cooking (to replace the calories).