

ANTON SUGOLOV

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Toronto, ON

EDUCATION

University of Toronto, St. George - Victoria College

HBSec. Mathematics and Statistics

Sep. 2020 - Jun. 2024 (*exp.*)

3.82

- Third year pursuing Mathematics specialist and Statistics major programs.
- Courses include Machine Learning, Data Analysis, Software Design, PDE, ODE, Analysis, Probability.

EXPERIENCE

Machine Learning Researcher

Prof. Animesh Garg, PAIR Lab, University of Toronto

Nov. 2022 - Present

Toronto, ON

- Working towards causal discovery in physical systems using energy based models.
- Aiming for identification of structural equations during causal discovery for robotics data.

Statistical Genetics Research Assistant

Prof. Lei Sun and Prof. Andrew Paterson, University of Toronto

June 2020 - June 2021

Toronto, ON

- <https://www.biorxiv.org/content/10.1101/2022.09.03.506492v1>
- Used PLINK v1.9, R for quality control, association tests, and principal component analysis on genetic data.
- Created open-source tutorial for running Genome Wide Association Studies using publicly available 1000 Genomes gene expression data; on the publication track in *Statistics in Biosciences*.
- Lead a workshop replicating GWAS results for 15 students with an introductory understanding of statistics.

PROJECTS

Machine Learning

- Trained deep-Q RL models with TensorFlow Keras and Numpy for OpenAI gym environments.
- Coursework experience with additive, generalized linear models, multilevel models, random forests, gradient boosting.
- Implemented LDA, QDA, and gradient descent for logistic regression from scratch in R.
- Interested in ML theory, especially the universal approximation of arbitrary continuous non-linear functions.

Course Scheduling Application

CSC207: Software Design

December 2021

- Created a Java-based course scheduler using the UofT API that allows students to generate schedules with specific parameters (exclude conflicts, enforce times with no classes, minimum RateMyProf ratings).
- Implemented SOLID design principles, design patterns, and used clean architecture to organize control of calls.
- Used GitHub workflow to collaborate with the team.

TECHNICAL STRENGTHS

Languages & Markup

Python, R, Java, HTML, \LaTeX

Packages

Numpy, Pandas, Sklearn, TensorFlow, PyTorch

Other

GitHub, Arch Linux

HONOURS

Regents Scholarship

Victoria College

2021, 2022

- In-course scholarship for academic merit.