ELIAS WILLIAMS

B. Sc. Candidate at the University of Toronto

EXPERIENCE

2020 - present — **Bioinformatics Analyst in the Ohashi Lab at the Princess Margaret Cancer Centre**
- explored methods for integrating single-cell RNA-sequencing datasets with batch correction
- cleaned, filtered, and de-noised single-cell RNA-sequencing data from tumors samples
- used gene set enrichment analysis and community cluster to characterize cell populations

2019 - 2021 — **Co-President of the University of Toronto Artificial Intelligence Group**
- managed a team that brought in $120k in partnership funding (5x the previous year's budget), led pitches, and maintained relationships with over 20 organizations
- brought *ProjectX* (a machine learning competition focused on climate change) from inception to fruition, supervised the recruitment of participants from 21 universities
- designed, administered, and lectured an introductory ML course hosted at UofT

2019 - 2020 — **Machine Learning R&D Intern at Senso AI**
- explored novel uses of convolutional neural networks on tabular, time-series data
- worked with GCP BigQuery, Storage, AI Platform, PubSub, Error Reporting, as well as Keras and TensorFlow

EDUCATION

2017 - present — **Undergraduate at the University of Toronto** *(grad. May 2022)* **cGPA 3.74, sGPA 4.0**
- Computer Science Specialist with a focus in machine learning and bioinformatics
- recipient of the Daniel Berlin Scholarship for a student studying artificial intelligence

Relevant Coursework

Deep Learning: A	Alg. Design and Analysis: A–
Cell & Molecular Bio I, II: A, A	Linear Algebra I, II: A+, B+
Intro Machine Learning: A+	Organic Chemistry: A+
Intro Artificial Intelligence: A	Calculus I, II: A–, Cr
Software Design: A	Biochemistry I, II: Cr, *A*

COMMUNITY

2020 - 2021 — **Instructor for LearnAI x AI Commons**
- delivered an introductory machine learning course to training institutions located in Kenya, Algeria, and Ghana
- designed program content and format around local problems and constraints

2020 — **TA for Software Design (CSC207) at UofT**

2018 - present — **Technology Leadership Initiative at UofT**

2013-2016 — **Massachusetts Student Advisory Council**
- increased funding for technology in under-resourced school districts

SKILLS

Python 2 & 3	R Language
Machine Learning	Dim. Reduction
Teaching	Presentation Skills
NumPy, Pandas	Keras/Tensorflow
SQL	Database Design
scRNA-seq Data	Seurat Library