

Victoria Valeeva

EDUCATION

University of Toronto

Honours Bachelor of Science – Applied Statistics

2021 – 2025

Canada

EXPERIENCE

Research Assistant

May 2024 — August 2024

Under supervision of Dr. Sushant Kumar

Toronto, Canada

- Simulating the binding of a ligand to the MYC oncoprotein for the purposes of cancer drug discovery
- Conducting data analysis of the binding simulations and comparing to experimental data

Research Assistant

May 2023 — August 2023

Under supervision of Dr. Duncan Dauvergne

Toronto, Canada

- Studying and conceptualizing new stochastic epidemic models
- Proving a theorem concerning the behaviour of a random walk process

Teaching Assistant: MAT135, MAT136, MAT232

September 2022 — Present

University of Toronto

Mississauga, Canada

- Lecturing, conducting office hours, preparing class materials/tutorials/tests/exams, grading assignments/exams.

Research Assistant

May 2021 — September 2022

Rauscher Lab, University of Toronto

Mississauga, Canada

- Conceptualizing and testing dimensionality reduction methods for protein simulation data to increase interpretability
- Improving a new dimensionality reduction method for molecular dynamics simulation based on variational autoencoders
- Building Markov models of protein simulations to discover the underlying dynamics
- Utilizing the University's high-performance computing resources (Niagara and MIST) to train neural networks and run extensive protein simulations

3D Artist

June 2020 – July 2020

SoyuzKhimPromProekt

- Producing high-quality renders of 5 civil engineering projects at the growing petrochemical facility
- Creating a software add-on for Blender 3D in Python to automate building generation
- Utilizing Blender API for fast modeling of paneled surfaces, reducing production time by 35%

TALKS, POSTERS, AND PUBLICATIONS

Functional Protein Dynamics in a Crystal - Klyshko et al.[bioRxiv](#)

UToronto Mississauga SURF 2022 - [Decoding Protein Dynamics with Machine Learning](#)

UToronto Mississauga Smarti Gras 2021 - Searching for Conformational States in the Dynamics of Protein Crystals

AWARDS

University of Toronto Excellence Award

2023

- Award by University of Toronto to support supervised undergraduate research; Value: 7,500\$
- Supervised by Dr. Duncan Dauvergne

UTM Undergraduate Research Grant

2022

- Grant by University of Toronto Mississauga to support undergraduate research; Value: 500\$
- Supervised by Dr. Sarah Rauscher

University of Toronto International Scholar

2021

- Entrance scholarship for undergraduate studies; Value: 180,000\$

Finals of International PhysTech Olympiad in Physics

2021

- prize-winner, top 1%, over 12 thousand participants worldwide