

# Parsa Rangriz

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CONTACT INFORMATION	Department of Statistics and Actuarial Science, University of Waterloo, 200 University Avenue West, Waterloo, ON, Canada, N2L 3G1	Email: prangriz@uwaterloo.ca Homepage: www.rangriz.com
EDUCATION	<b>University of Waterloo</b> M.Math. in Statistics (Sep 2023 - Apr 2025) <ul style="list-style-type: none"><li>• Advisor: Prof. Aukosh Jagannath</li><li>• GPA: 92.25/100</li></ul> <b>Sharif University of Technology</b> B.Sc. in Physics (Sep 2018 - Feb 2023) <ul style="list-style-type: none"><li>• GPA: 18.34/20</li><li>• Minor in Mathematics</li></ul>	
RESEARCH EXPERIENCES	<b>Graduate Research Student</b> , University of Waterloo (Sep 2023 - Apr 2025) <ul style="list-style-type: none"><li>• Supervisor: Prof. Aukosh Jagannath</li><li>• Thesis: <i>Scaling limits of stochastic gradient descent for the single index models in the teacher-student network.</i></li></ul> <b>Undergraduate Student</b> , Sharif University of Technology (Oct 2021 - Apr 2023) <ul style="list-style-type: none"><li>• Supervisor: Prof. Saman Moghimi and Prof. Abolfazl Ramezanpour</li><li>• Project: <i>Loop corrections for hard spheres in Hamming space.</i></li><li>• Journal: arXiv:2409.03670 [cond-mat.dis-nn]</li></ul> <b>Research Intern at SPOC Lab</b> , EPFL (July 2022 - Sep 2022) <ul style="list-style-type: none"><li>• Supervisor: Prof. Lenka Zdeborova</li><li>• Project: <i>Assortative partitions on dense random graphs.</i></li></ul> <b>Undergraduate Student</b> , Sharif University of Technology (June 2021 - Sep 2021) <ul style="list-style-type: none"><li>• Supervisor: Prof. Amir Daneshgar</li><li>• Project: <i>Belief propagation for graph bi-partitioning.</i></li></ul> <b>Remote Research Intern</b> , University of Manchester (Feb 2021 - Jun 2021) <ul style="list-style-type: none"><li>• Supervisor: Dr. Ahsan Nazir and Dr. Adam Stokes</li><li>• Project: <i>Thermodynamics of non-conjugate quantum subsystems.</i></li><li>• Journal: Phys. Rev. E 106, 034111 (2022)</li></ul> <b>Undergraduate Student</b> , Sharif University of Technology (Feb 2021 - Jun 2021) <ul style="list-style-type: none"><li>• Supervisor: Prof. Abolhassan Vaezi and Prof. Sadegh Raeisi</li><li>• Project: <i>Phase transitions in the transverse-field Ising model.</i></li><li>• Report: academia.edu/63923308/ and github.com/parsa-rangriz/ML</li></ul>	
HONORS AND AWARDS	University of Waterloo Graduate Scholarship, \$1,000, 2025 Graduate Research Studentship, University of Waterloo, \$36,473, 2023-2025 International Master's Award of Excellence, University of Waterloo, \$5,000, 2023 MMath Entrance Scholarship, University of Waterloo, \$1,000, 2023 Summer@EPFL Fellowship, EPFL, 4.800 CHF, 2022 Ranked 5th in the 26th Iran University Physics Olympiad, Sanjesh Org., 2021 Silver Medal in the 30th Iran National Physics Olympiad, Sampad Org., 2017	

SUMMER SCHOOLS	<p>CRM-PIMS Summer School in Probability, Universite de Montreal, 2024</p> <p>Summer@EPFL: Summer Research Internship, EPFL, 2022</p> <p>Quantum Thermodynamics Summer School, ETH Zurich, 2021</p>
TEACHING EXPERIENCES	<p><b>Teaching Assistant</b>, University of Waterloo (2023-2025)</p> <ul style="list-style-type: none"> <li>• STAT 333: Stochastic Processes 1 (Winter 2025, Winter 2024)</li> <li>• STAT 833: Stochastic Processes 2 (Fall 2024)</li> <li>• STAT 330: Mathematical Statistics (Spring 2024, Fall 2023)</li> <li>• STAT 231: Probability (Spring 2024)</li> <li>• STAT 230: Statistics (Spring 2024)</li> <li>• STAT 202: Introductory Statistics for Scientists (Fall 2023)</li> </ul> <p><b>Teaching Assistant</b>, Sharif University of Technology (2019-2022)</p> <ul style="list-style-type: none"> <li>• Advanced Statistical Mechanics (Fall 2022, Fall 2021, Spring 2021)</li> <li>• Thermodynamics and Statistical Mechanics 2 (Spring 2021)</li> <li>• Thermodynamics and Statistical Mechanics 1 (Fall 2020)</li> <li>• General Physics III (Fall 2019)</li> <li>• Fundamentals of C Programming (Fall 2019)</li> </ul>
SERVICES	<p>Member of Partov Club: University of Waterloo Iranian Cultural Group, 2024 - 2025</p> <p>Scientific Coordinator of Sharif Physics Undergraduate Student Association, 2020 - 2021</p> <p>Organizer of Quanta: Sharif Physics Study Circles, 2020 - 2021</p> <p>Director of Feynman's Lecture Notes Translation, Zharfa Scientific Association, 2021</p> <p>Editorial Board Member of Takaneh: Sharif Physics Student Magazine, 2019-2020</p>
SKILLS	<p>Programming: Experienced in C and Python</p> <p>Libraries: Familiar with Scikit-Learn, Keras, and TensorFlow</p> <p>Tools: Experienced in Mathematica and <math>\text{\LaTeX}</math></p> <p>Languages: English (C1), Turkish (Fluent), Azerbaijani and Persian (Native)</p>