

MANAV RAMPRASAD

860-986-8355 · manav.m.ramprasad@gmail.com · www.linkedin.com/in/manav-ramprasad · Atlanta, GA · US Citizen

EDUCATION

UNIVERSITY OF TORONTO - TORONTO, ON, CANADA

SEP 2025 - PRESENT

- Ph.D. Student in Computer Science
 - Supervised by Dr. Alán Aspuru-Guzik, working in the Matter Lab

GEORGIA INSTITUTE OF TECHNOLOGY - ATLANTA, GA, USA

JUN 2020 - MAY 2024

- Bachelor of Science in Computer Science - Intelligence & Modeling/Simulation 3.8/4.0
 - Minor in Materials Science & Engineering
- Scholarships/Awards: NSF GRFP Honorable Mention, Zell Miller Scholarship, M. Weldon Rogers Scholarship

EXPERIENCE

FUNG LAB - ATLANTA, GA

MAY 2024 - MAY 2025

- Pre-training on atomic-level descriptors including Atom-Centered Symmetry Functions and Embedded-Atom Density
- Fine-tuning on the Materials Benchmark dataset created by the Materials Project to create a new proprietary model
- Feature engineering to find new and more holistic descriptor functions to generate features on for pre-training

CHAO ZHANG RESEARCH GROUP - ATLANTA, GA

JUN 2022 - NOV 2024

- Improving In-Context learning and multi-step reasoning for healthcare texts by training over MIMIC-III notes
- Created PostgreSQL databases to analyze the MIMIC-III dataset, containing over 50,000 distinct hospital visits
- Pre-processed data in the database to recreate existing Machine Learning models' results to track improvement

POLYMER GENOME RESEARCH INTERN - ATLANTA, GA

JUN 2018 - DEC 2020

- Improved the Gaussian Process Regression model by 30% for the prediction of a variety of polymer properties
- Scraped property data for over 6,000 homopolymers, copolymers and polymer blends by writing a Python script
- Identified deficiencies of the GPR-based Machine Learning model by curating and analyzing data of interest

LEADERSHIP

GEORGIA TECH UNDERGRADUATE RESEARCH AMBASSADOR - ATLANTA, GA

AUG 2023 - MAY 2024

- Engages with undergraduate students through presentations and workshops to encourage involvement in research
- Hosts office hours for prospective students to discuss research interests and find suitable opportunities on campus

PUBLICATIONS/PRESENTATIONS

- Jia, Govil, Ramprasad, Fung "Pre-training Graph Neural Networks with Structural Fingerprints for Materials Discovery", Pre-Print
- Xu, Xu, Ramprasad, Tumanov, Zhang "TransEHR: Self-Supervised Transformer for Clinical Time Series Data", Machine Learning for Health
- Tran et al "Machine-learning predictions of polymer properties with Polymer Genome", Journal of Applied Physics
- Ramprasad, Kim "Assessing and Improving Machine Learning Model Predictions of Polymer Glass Transition Temperatures", Journal of Emerging Investigators

SKILLS

SOFTWARE:	Python, Qiskit, PyTorch, TensorFlow, Java, PostgreSQL, R, MATLAB, G-Code (CNC), AutoCAD
ACADEMICS:	Competition Math (AIME qualifier, NEML winner), CS (CS Olympiad), Physics (Physics Olympiad)
COMMUNICATION:	Public Speaking & Presentations (WE Day Madison Square Garden), Research Paper Writing
EXTRACURRICULARS:	Chess (GT Team, 9th Grade CT State Champion - USCF Rating: 1879), Basketball, AKPsi Fraternity