Gregory Kondas

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RESEARCH INTERESTS

My primary research interests lie at the intersection of machine learning and computational healthcare. I am particularly interested in developing novel self-supervision techniques for Electronic Health Record foundation models.

- **Topics:** *Machine Learning, Healthcare, Representation Learning, Foundation Models, Self-Supervised Learning*

EDUCATION

University of Michigan, Ann Arbor, MI **May 2024**

- Bachelor of Science, **Computer Science;** Minor in **Physics**
- GPA: 3.94

Relevant Courses: Machine Learning, Computer Vision, Natural Language Processing, Linear Algebra, Structural Biology, Modern Physics, Organic/Physical/Biological Chemistry, Statistics

EXPERIENCE

Machine Learning for Data Driven Decisions Lab, Research Assistant, *full-time* **May 2024 – Present**

- Currently working towards building novel self-supervised techniques for electronic health record data.

Machine Learning for Data Driven Decisions Lab, Undergrad Research Assistant **May 2023 – May 2024**

- Work with PhD candidate Sarah Jabbour and Professor Jenna Wiens on machine learning for healthcare.
- Second authorship on DEPICT manuscript accepted to *ECCV 2024*.

Physics for the Life Sciences II, U of Michigan, **Teaching Assistant** **Jun. 2021 – Dec. 2023**

- Articulated abstract procedures to analyze, understand, and solve physics problems with students 1-on-1.
- Facilitate two weekly problem-solving workshop sessions with ~40 students to prepare students for exams.

Yang Lab, U of Michigan, **Undergrad Research Assistant** **Sep. 2021 – May 2022**

- Worked on a project studying mechanical forces involved in zebra fish cell differentiation with Professor Qiong Yang and PhD student Usha Kadiyala.
- Regularly performed various wet lab tasks such as solution making, dissections, and single cell microinjection.

ATLAS Collaboration Project, U of Michigan, **Undergrad Research Assistant** **Jun. 2021 – Aug. 2021**

- Optimized construction and testing process of sMDTs (small Monitor Drift Tubes) for CERN's upgrade of the Muon Spectrometer at the Large Hadron Collider in Geneva, Switzerland.
- Troubleshooted / solved mechanical problems encountered during construction and testing process.

Computational Neuroscience Lab, U of Michigan, **Undergrad Research Assistant** **Sep. 2020 – May 2022**

- Designed and implemented median absolute deviation script in python to regularly process ~280 participant's behavioral and background data.
- Designed and implemented a pipeline to analyze heterogeneous fMRI data among MiND study participants.

PUBLICATIONS

Sarah Jabbour, **Gregory Kondas**, Ella Kazerooni, Michael W. Sjoding, David Fouhey*, Jenna Wiens*. "DEPICT: Diffusion Enabled Permutation Importance for Image Classification Tasks." *ECCV 2024*

AWARDS

Phi Beta Kappa – University of Michigan, College of Literature Science and The Arts **Apr. 2023**

- Fewer than 10% of seniors are invited to join the nation's oldest academic honor society.

Barnstorm Freshman Prize – University of Michigan **Mar. 2020**

- Awarded to freshmen who rank in the top 5% of their class within their school or college.

Eagle Scout – Boy Scouts of America**,** Cleveland, OH **2015**

- Designed and facilitated construction of butterfly garden at St. Michael School in Independence, OH.
- Raised ~$2000 in fund raising for butterfly garden materials and supplies.

TECHNICAL SKILLS

- Programming Languages**:** Python, C++, SQL, Java