Carly Miles

carmiles@umich.edu | (802) 299-5563 | www.linkedin.com/in/carly-miles/

Education

University of Michigan **Ann Arbor, MI**
B.S. in Computer Science with a minor in Sustainability, 3.92/4.00 GPA *April 2025*
Curious, driven, and collaborative. Passionate about intersections of technology, businesses, and sustainability.

Experience

FreshAir Sensors **Lebanon, NH**
Software Engineer Intern *May 2023 - August 2023*

- Improved smoke detection algorithms using C, python, and SQL. Integrated design with both hardware components and higher-level software ML algorithms in use.
- Constructed a convolutional neural network to detect smoking with an accuracy of 93%, trained on 86K samples.

SPARK Electric Racing **Ann Arbor, MI**
Powertrain Control Team Lead *January 2023 - Present*

- Problem-solved as a team to use software to evaluate power levels in our motorbike and analyze data collected by other subteams to optimize organization-wide strategies.
- Lead a team of 6 students, organize work sessions, assign projects, and teach software concepts.

The Michigan Daily **Ann Arbor, MI**
Mobile Developer *January 2023 - September 2023*

- Working with Ann Arbor's largest news source to release a mobile application to efficiently, accurately, and aesthetically provide daily news to students and residents in the surrounding areas.
- Utilizing React Native and the wordpress API to provide front-end functionality to the application, while working with teams of data engineers and product developers to make The Daily's application come to life.

Research

Realize Lab at The University of Michigan CSE Department **Ann Arbor, MI**
Assistant in Research under Dr. Bondi-Kelly *September 2023 - Present*

- Built a web application in React Native to determine subject responses to medical misinformation presented by a LLM. Focused on ease of use and aesthetic similarity to existing ML chatbot platforms.
- Researched existing machine learning algorithms to predict optimal signal frequency.

EDIT ML Lab at Dartmouth Hitchcock Medical Center **Hanover, NH**
Research Intern and Mentor *February 2022 - February 2023*

- Produced a workflow to predict risk of malignancy over a biopsy image based on individual clusters of cells.
- Mentored a group of 10 high school students in the EDIT ML lab, teaching python basics and understanding of necessary documentation for implementing simple machine learning algorithms.

Publications

Current Opinion in Gastroenterology **Hanover, NH**
Expanding indications for pancreatic islet cell transplantation *September 2020*

- Researched pancreatic islet cell transplantation under the mentorship of gastroenterologist Dr. Timothy Gardner. Focused on analyzing the success and importance of new indications for islet cell transplantations.

Advances in Molecular Pathology **Hanover, NH**
Artificial Intelligence, Bioinformatics, and Pathology: Emerging Trends Parts I and II *April 2023*

- An introduction and analysis of developing and established Machine Learning technologies as they relate to bioinformatics and pathology.

Relevant Courses at the University of Michigan

Machine Learning (EECS 445), Computer Organization (EECS 370), Data Structures and Algorithms (EECS 281), Quantitative Methods in the Social Sciences (QMSS 201), Linear Algebra (MATH 214)

Skills

C++, Python, React Native, Microsoft Office, AWS, Tableau, SQL, Machine Learning, Research (and Technical Writing), Jupyter Notebook, Git, French (working knowledge)

Fun fact: I have done every New York Times mini crossword puzzle since May of 2019!