

Andrew Kerr

B.S. Physics & B.Mus. Percussion Performance
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EDUCATION

UNIVERSITY OF MICHIGAN

BS Physics & BMus Percussion Performance

September 2018 - Present

- 3.9 / 4.0 GPA
- Coursework: Programming and Data Structures, Computational Physics, Quantum Mechanics, Differential Equations, Multivariable Calculus, Math Methods of Theoretical Physics, Physics Labs

EXPERIENCE

RESEARCH ASSISTANT

Glotzer Research Group, U of M College of Engineering

April 2021 - Present

- Contribute code updates, bug fixes, and new features to molecular dynamics scientific software libraries.
- Implement a peak-finding algorithm to improve accuracy of existing unit tests and conform to physics conventions.
- Develop software demo examples in Jupyter Notebook and update technical documentation to improve usability.

TRANSIT COACH OPERATOR

U of M Logistics, Transportation & Parking

September 2020 - March 2021

- Operate campus “Blue Buses” on various inter- and intra-campus routes.
- Provide safe, timely service and campus information to U of M students, staff, and faculty.
- Maintain detailed logs of driving metrics, including passenger counts, miles travelled, and departure and arrival times.

PHYSICS LEARNING ASSISTANT

U of M Department of Physics

September 2019 - December 2019

- Aid ~24 students in understanding Introductory Mechanics concepts as they are presented in real-time.
- Answer students’ questions thoughtfully and concisely, in order to facilitate group work assignments.
- Maintain a strong command of introductory mechanics concepts and problem-solving strategies.

PROJECTS

IT’S LIKE

October 2021

- Single-page web app that generates easy-to-explain business ideas in terms of pre-existing companies.
- Created at MHacks14 using React, Flask and Python ([source code](#))

LORENZ ATTRACTOR ANIMATION

October 2021

- A CLI that allows users to specify initial conditions for up to five simultaneous Lorenz Attractors.
- Created with Python and Pygame ([source code](#))

ONLINE AUCTION WEBSITE

August 2021

- Toy implementation of an e-commerce website on which users can register for accounts, create listings, and place bids.
- Created with Python, HTML/CSS, SQLite, Django, and Bootstrap ([source code](#))

SKILLS

- Programming Languages: Python, C/C++, HTML, CSS, JavaScript, Bash, Markdown, LaTeX
- Technologies & Frameworks: Django, Flask, React.js, SQL, Numpy, Matplotlib, VSCode, Git, Vim