Oliver Gao

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Education

University of Michigan   Ann Arbor, MI
Bachelor of Science in Engineering in Computer Science, GPA: 4.0/4.0   May 2024
Relevant Courses: Data Structures and Algorithms, Machine Learning, Probability and Statistics, Linear Algebra

Skills

Programming	C++ • Python
Web Technologies	HTML/CSS/Javascript • React • Express
Data Science	Python (NumPy, pandas, seaborn, Altair) • SQL

Experience

Michigan Institute for Data Science   Ann Arbor, MI
Student Web Designer   Jul. 2021 - Present
- Develop new webpages according to specifications using HTML, CSS, and Javascript
- Lead collaboration with partner research centers to build responsive websites that effectively convey their research findings
- Refactor and redesign webpages to be more dynamic, accessible, and visually appealing

U-M Undergraduate Research Opportunity Program (UROP)   Ann Arbor, MI
Student Researcher   Jul. 2021 - Present
- Work with Prof. John Kloosterman and Washington Post graphics editor John Muyskens to analyze and visualize a huge dataset of all US opioid shipments from 2006-2014
- Investigate geographic and demographic patterns associated with opioid pill distribution
- Engineer features using Python and pandas to create engaging visualizations in Altair

Projects

Design.io - An online platform for design inspiration
Personal Project   Apr. 2021 – Jul. 2021
- Designed and developed front-end of the web application using React
- Implemented a user account and authentication system using Express and NodeJS
- Built a REST API that supports CRUD operations on a MongoDB database

Coordinate Path Finder
EECS 281   Nov. 2021 – Dec. 2021
- Implemented Branch and Bound algorithms, Minimum Spanning Trees, and heuristics in C++ to find optimal solutions to the Traveling Salesperson Problem

Michigan Data Science Team
Earthquake Damage Prediction   Jan. 2021 - Apr. 2021
- Performed data analysis, feature engineering, and created data visualizations using Python, pandas, and seaborn
- Trained a random forest model to predict earthquake building damage