Oliver Gao

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Education

University of Michigan — Ann Arbor, MI

Bachelor of Science in Engineering in Computer Science — May 2024

- **GPA:** 4.0/4.0, James B. Angell Scholar
- **Relevant Coursework:** Data Structures and Algorithms, Web Systems, Databases, Machine Learning, Probability and Statistics

Skills

- **Languages:** Python, C++, C#, JavaScript, SQL, HTML, CSS
- **Frameworks:** React, Express, Node.js

Work Experience

TechSmith Corporation — Okemos, MI

Software Engineer Intern — May 2022 – Aug. 2022

- Architected and implemented a new automated testing framework for Snagit software upgrades that reduced manual testing time by 90% using C# and PowerShell
- Collaborated with UX designers to build an intuitive user interface in Snagit for the uninstall old versions feature to satisfy a top 5 customer request using C# and WPF/XAML
- Developed a suite of 10+ automated user interface tests using object-oriented programming to increase the quality and speed of software releases
- Worked with product managers and engineers in an agile environment to define project requirements, break down tasks into scoped slices, and communicate progress in daily standups

Michigan Institute for Data Science — Ann Arbor, MI

Web Developer — Jul. 2021 – Present

- Developed an online application to connect 200+ students with employers through a resume submission portal and employer dashboard
- Spearheaded collaboration with University of Michigan researchers to build the Public Interest Technology Knowledge Network's website from the ground up to convey research findings
- Designed and built responsive webpages to drive over 40,000 monthly views using JavaScript, HTML, and CSS

University of Michigan College of Engineering — Ann Arbor, MI

Student Researcher — Sep. 2021 – Apr. 2022

- Developed a data processing pipeline using Python and pandas to clean and transform a 177GB dataset of U.S. opioid shipments from 2006-2014
- Analyzed geographic and demographic patterns associated with opioid distribution and created data visualizations to communicate results using Python Altair
- Drove weekly meetings with Professor John Kloosterman to present and discuss findings

Projects

Design.io (Personal Project) — Apr. 2021 – Jul. 2021

- Designed the overall concept of an online platform for design inspiration
- Implemented a responsive front end in React that allows users to create, update, and delete designs
- Built a backend and REST API in Express and Node.js to handle user authentication and communicate with a MySQL database that stores all the data for the application

Course Forum Post Classifier — Feb. 2022 – Apr. 2022

- Trained and tuned a machine learning model to classify the emotion of a post with 77% accuracy
- Maximized accuracy of the model by performing hyperparameter optimization, model selection, data preprocessing, and feature extraction techniques in Python and sklearn