Trevor Zou

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SKILLS

Languages - JavaScript, HTML, CSS, Python, Mongo, JSON, Matlab, C, Go, SQL | **Database** - PostgreSQL, MongoDB |
Libraries and Frameworks - Express.js, Django, Jquery, Bootstrap | **Other** - RESTful Routing, API, GitHub, Latex, AWS, Docker

PUBLIC INTEREST TECHNOLOGY

Automated Hydroponics System | Go, Python, FastAPI, AWS, Git, React
- Implement a cloud-based automated hydroponics system as part of a larger project focusing on the intersection between engineering and sustainable agriculture
- Developed custom API for Backend, full interactive monitoring Web App using React, and sensor/actuator control using Arduino and Rasberry Pi
- Practiced Software Engineering best practices through CI/CD using automated unit testing/linting/formatting and detailed documentation
- Ran community activities and discussions on systems thinking and the social inhibitors of a more sustainable agriculture transition

Grad | Javascript, Express, MongoDB/Mongoose, Liquid
- Designed a tool for keeping track of graduation requirements (general and major-specific) for my college to learn about user-oriented design
- 2 complete create, read, update, delete (CRUD) operations, 3 models, authentication, and seeded class/major data
- Created application with utility-first approach with simple tables for requirements, calendar for schedule, and grid for catalog as features based on user interviews and codesigns

EPA Notebook | Python, Numpy, Pandas
- Led a team of students from Olin Public Interest Tech to develop a Python notebook exposing race-based data gaps in the EPA's Enforcement and Compliance History Online database
- Co-Designed with environmental policy non-profit EDGI, pitched final work to ProPublica and New York Times journalists.
- Used API calls for database querying, Pandas for data processing
- Packaged into accessible open-source Google Colab with easy-to-digest format/additional curated resources

Machine Learning Activity | Microcontroller, Scratch
- Designed an activity for underprivileged kids of color in the Roxbury Area over the summer to learn about the technical components and social impact of machine learning and artificial intelligence
- Made interface complex yet approachable using scratch and accessible machine learning module Teachable Machine, along with a tailored discussion activity on implications and biases of this type of technology

EXPERIENCE

Volunteer, Data Science Team, Reach4Help | Canada   Feb 2021 - Dec 2021
- Data Science and Development for nonprofits democratizing access to volunteer help worldwide through accessible online mutual-aid programs
- Parsed User-Submitted Data for input into Oxygen/Vaccine resource map, cleaned and synced data across web-storage platforms
- Web-scraped and analyzed Twitter social media trends using NLP to create real-time location-specific crisis demand maps

Project Manager, Olin Public Interest Technology Project Team | Needham, MA   Aug 2022 - Present
- Leader of an organization at school focusing on the practical application of engineering skills for social good
- Plan meetings. organize speaker events with Public Interest Technologists in various fields and career roles

Olin Public Interest Tech Fellowship, Remote | Nashville, TN   May 2021 - August 2021
- Fellowship allows students to work at public interest organizations and advance Olin's mission to do work for the good of the world.
- Worked with an organization developing solutions to effectively deliver medical supplies over long distances to those with accessibility issues.
- Configured custom prototype of VTOL drone design for flight simulation/autonomous flight in a flight simulator using 3dsMax, RealFlight, and ArduPilot

EDUCATION

General Assembly || Remote

Software Engineering Immersive   **June 2022 - September 2022**

Full-stack software engineering immersive student in an intensive, 24-week, 450+ hour program focused on product development fundamentals, object-oriented programming, MVC frameworks, data modeling, and team collaboration strategies. Developed a portfolio of individual and group projects.

Olin College | Needham, MA

Bachelor of Science in Engineering with Computing   **August 2020 - May 2024**

Cumulative GPA: 3.89/4.00

- Recipient of 50% tuition merit scholarship