

# Michael Avendano

## Software Engineer

GitHub: <https://github.com/avenmia> Email: [mavend2@gmail.com](mailto:mavend2@gmail.com) Website: <https://michaelavendano.com>

## Professional Experience

Pangaea Information Technologies, Software Engineer | Jan 2019 - Present

*Taking Stock Online* - <http://takingstock.cec.org/content/landing/>

This application enables users to explore North American industrial pollution data, combining information from the United States, Mexico, and Canada into an interactive query tool that generates summary charts and downloadable reports.

- Enhancing performance and user experience of the Taking Stock Online landing page.
  - Revamping the landing page for best practices, cross-browser compatibility, and ADA (Americans with Disabilities Act) compliance using React and TypeScript.
  - Maintaining and improving the query tool using C# with ASP.NET and SQL Server
  - Conducting code reviews and writing unit tests for software quality and maintainability.
  - Providing mentorship to an intern in software engineering, guiding them through company projects and enhancing their coding skills and industry knowledge.
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## Volunteer Experience

Code With Aloha, Volunteer Developer and Organizer | Jan 2022 - Present

*HIERR (Hawaii Economic Recovery and Resilience) Survey Tool*

The HIERR survey tool project is part of a larger initiative that the State of Hawai'i Office of Planning & Sustainable Development's (OPSD) Special Plans Branch aims to gather community insights on creating a more resilient and equitable Hawaiian economy.

- Worked closely with state representatives to align the digital platform's design with their strategic goals.
- Led the design and deployment of the survey tool, guiding a volunteer team of 15 - 20 members to meet the state's unique requirements.
- Built a user-friendly web application around Pol.is using NextJS, Prisma, React, Tailwind, and TypeScript, enhancing accessibility.

*Hawaii Zoning Atlas* - <https://hawaii zoningatlas.com>

The Hawaii Zoning Atlas is an interactive map showing how outdated zoning laws make it hard to build diverse, affordable housing in Hawaii. The atlas is being used as a tool to help pass affordable housing legislation for the state of Hawaii.

- Helped develop and maintain the Hawaii Zoning Atlas, an interactive map visualizing the impact of zoning laws on housing diversity and affordability in Hawaii.
  - Utilized GIS software to combine zoning law data with shape files to power the interactive map
  - Contributed to automating the data pipeline which consisted of writing Jupyter notebooks to shape the data for the website
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## Professional Associations, Activities, Achievements

- 1st Place, Hawaii Annual Code Challenge 2024 (Aloha Birds project)
  - 4th Place, Hawaii Annual Code Challenge 2023 (Marine Debris project)
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## Education & Certifications

University of Illinois at Chicago

- B.Sc., Computer Science, Dec 2018
- B.Sc., Physics, May 2015

CompTIA Security+ 601

## Languages and Technologies

- Languages: TypeScript, C#, JavaScript, Python
- Technologies/Frameworks: NextJS, Prisma, Tailwind, React.js, Node.js, ASP.NET, Entity Framework, git, Azure