Michael Arnold

🔗 https://github.com/michaelarn0ld/

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Engineering graduate turned programmer; I am a self-taught software developer who loves building beautiful apps that live on the web. Currently, I'm looking for opportunities to expand my technical and soft skills as an engineer. My goal is to obtain a full-time role in designing, developing, and maintaining software.

Technical Skills

Programming
- HTML5
- CSS3
- JavaScript
- PHP
- Python

Frameworks & Libraries
- SCSS
- Bootstrap
- React
- Laravel

Development Tools
- Visual Studio Code
- Adobe XD
- Unix CLI
- Git

Soft Skills

Personal Expertise
- Project Management
- Problem Solving
- Public Speaking
- Critical Thinking

Team Oriented
- Adaptability
- Accountability
- Collaboration
- Communication

Interests
- Backend Development
- Database Architecture
- Data Science
- UI/UX

References available upon request

Education

2016 - 2021
California State Polytechnic University, Pomona ｜ B.S. Chemical Engineering
Dean's List: Spring 2019, Fall 2019, Spring 2020, Fall 2020, Spring 2021
Graduation Honors: Cum Laude

Relevant Experience

July 2020 - July 2021
Elsinore Valley Municipal Water District ｜ Engineering Intern

- Developed a python application to predict peak demands for recycled water which completely eliminated the need for potable water supplement at treatment facilities
- Created a data dashboard, powered by python, that provided real-time analysis and visualization of water quality data as part of a collaborative lake health maintenance program
- Built an application with python that combined, cleaned, and prepared multiple streams of water data to generate blending reports that resulted in the extension of groundwater blending programs
- Automated reporting with a program that filled and submitted web-forms with data from existing excel spreadsheets by using python requests and BeautifulSoup libraries.

Projects

Employee Management System
🔗 http://crudemployeemanagement.herokuapp.com/

- Created a CRUD employee management application using PHP Laravel, MySQL, Bootstrap, and Vue.js with MVC design pattern.
- Implemented user registration/authentication and built a backend for "User Management" and "System Management" features.
- Utilized Vue.js for the "Employee Management" feature's frontend and built API endpoints for categorizing and filtering employees.

Pathfinding Visualization
🔗 https://michaelarn0ld.github.io/pathfinder-app/

- Developed a frontend application that visualizes the "Traveling Salesman Problem" by finding the shortest cycle from a user input graph of vertices.
- Applied concepts from the BFS algorithm to find all the minimum vertex to vertex paths and permuted the results to determine the overall shortest cycle.
- Dynamically manipulated DOM elements' classes to indicate and animate the visited paths during the graph traversal.

Weather Forecasting App
🔗 https://michaelarn0ld.github.io/weather-app/

- Built a frontend application with React that displays current and forecasted weather data utilizing functional components and hooks.
- Implemented the fetch api to query data from www.weatherapi.com and display it to the UI based on input from form submissions.
- Used SCSS and JavaScript animation library (GSAP) to enhance frontend feel, usability, and mobile-responsiveness.