Tristan Allaman
Software Engineer

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TECHNICAL SKILLS

Languages: JavaScript, Python, SQL, HTML5, CSS3

Frameworks/Libraries: React.js, Redux, Express.js, Flask, Sequelize, SQLAlchemy, Playwright, PyTorch, Mocha

Tools/Technologies: Docker, PostgreSQL, SQLite3, Git, Linux, AWS S3, RESTful APIs, Microsoft Excel

WORK EXPERIENCE

Skysense, *Software Engineer/Machine Learning Intern* - Richland, Washington   April 2024 - July 2024
- Designed and implemented enhancements to Skysense's public-facing website and app using HTML, SCSS, JavaScript, Pug, and Vue.js, resulting in a 15% increase in user engagement and a 20% boost in site traffic by creating dynamic web styling and improving map interactivity to elevate user experience and functionality.
- Developed and deployed advanced AI models and algorithms for crop and labor detection using deep learning, significantly increasing the accuracy of plant stand counts by 25% and worker management for various crops.
- Assisted in creating a weed diameter filter for Skysense's analytics app, enabling critical precise identification and tracking of emergent weed growth for farm management.

Inspire Diagnostics, *EMT* - Santa Cruz, CA   March 2022 - March 2023
- Administered COVID-19 tests, ensuring accurate and efficient processing for patients while providing support.
- Operated as a standby EMT, delivering EpiPens to patients experiencing adverse reactions after COVID-19 vaccine administration. Adhered to PPE protocols to ensure compliance with health guidelines.

Central Coast Ambulance, *EMT* - Santa Cruz, CA   September 2021 - April 2022
- Administered Basic Life Support (BLS) procedures, including CPR, airway management, and hemorrhage control, to stabilize patients in emergency situations.

PROJECTS

Rescue Ready (Javascript, HTML5, CSS3, React, Redux, Flask, SQLAlchemy, PostgreSQL, Python)   Live Site | Github
A flashcard and quiz application for EMT students studying for the NREMT exam
- Engineered the backend using Python and Flask, managing data workflows, user authentication processes and establishing RESTful API endpoints to support full-scale CRUD actions.
- Incorporated SQLAlchemy as an ORM for efficient database queries, including functionality such as eager and lazy loading to expedite the user experience and overall performance of the application
- Implemented FlaskWTForms along with react validation logic enabling users to CRUD their own flashcards, flashcard sets and quizzes promising a personalized study experience. Integrated a dynamic search bar.

Tristan's Travels (Javascript, HTML5 , CSS3, React, Redux, Express, Sequelize, PostgreSQL)   Live Site | Github
An "AirBnB" clone that enables users to create and manage listings and share their thoughts through reviews.
- Developed efficient data storage and management solutions by leveraging Sequelize for SQL database interaction and implemented robust data fetching techniques to integrate RESTful APIs using JavaScript.
- Enhanced development process by utilizing Postman for data validation, endpoint testing, debugging and troubleshooting, which improved accuracy, reliability and user experience (UX).
- Strengthened application security and reliability by implementing Express validation middleware to validate incoming requests, ensuring data integrity and consistency.

Pledge Palooza (Flask, SQLAlchemy, JavaScript, React, Redux, HTML, AWS and CSS3)   Live Site | Github
A crowdfunding application inspired by Kickstarter in which users can create, like and back projects and receive rewards.
- Integrated a Flask backend with WTForms along with React frontend validation logic simplifying the process of using forms to ensure smooth user posting permissions
- Employed elaborate CSS techniques such as Flexbox and Grid to craft a user-friendly interface. Ensured seamless navigation through implementing react components, guaranteeing user satisfaction by creating a dynamic, responsive interface.
- Leveraged Redux for centralized state management, ensuring consistent data flow and smooth updates across the application for an elevated user experience.

EDUCATION

APP ACADEMY   Part-Time Online   November 2022- November 2023
- A rigorous and immersive full-stack software engineering bootcamp with a <5% acceptance rate. 1000+ hours of full-stack development modules with emphasis on project-based learning, pair-programming, and OOP.

UC Santa Cruz   Santa Cruz, CA   September 2017- June 2021
- Biology, University of California, Santa Cruz