Tristan Allaman
Software Engineer

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SKILLS   React, Redux, Javascript, Docker, Python, SQL, SQLite3, PostgreSQL, SQLAlchemy, Sequelize, Git, HTML, CSS, Render, Node.js, Express.js, Flask, Object Oriented Programming, RESTful APIs, SCRUM, Cloudinary, Data Structures and Algorithms, Pair Programming, AI Algorithms, YAML, Pug, Stylus, Object Detection, Deep Learning, PyTorch, MongoDB, Test Driven Development, Version Control, Critical Thinking, Collaboration, Analysis

PROJECTS

Pledge Palooza (Flask, SQLAlchemy, JavaScript, React, Redux, HTML, AWS and CSS)   Live Site | Github
A crowdfunding application 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.

Rescue Ready (Javascript, HTML, CSS, 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 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 to enable users to CRUD their own flashcards, flashcard sets and quizzes promising a personalized study experience.
- Designed a responsive search bar using react hooks and advanced array methods that effectively filters flashcards, flashcard sets, and quizzes in real time, encouraging users to find relevant study topics efficiently

EXPERIENCE

Skysense, *Software Engineer/Machine Learning Intern* - Richland, Washington   April 2024 - July 2024
- Designed enhancements to Skysense's public-facing website and app leveraging JavaScript, Pug, Stylus, and Vue.js to create dynamic and responsive web styling and improving map interactivity to elevate user experience and functionality, boosting user engagement and site traffic.
- Developed and deployed advanced AI models and algorithms for crop and labor detection using deep learning, significantly enhancing the accuracy of plant stand counts and worker management for various crops including potatoes, corn, wheat, asparagus, and carrots
- Contributed to an auto-retraining feature for AI models, ensuring up-to-date accuracy and maximizing profit margins by optimizing AI performance across acres analyzed.
- Played a key role in refining Skysense's core products and services, directly impacting the company's revenue by enhancing the precision and reliability of AI-powered analyses charged per acre to farmers.
- Assisted in creating a weed diameter filter for Skysense's analytics app, enabling precise identification and tracking of emergent weed growth which is crucial information 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.
- Strictly adhered to Personal Protective Equipment (PPE) protocols ensure compliance with health guidelines.

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 an emphasis on project-based learning, pair-programming, and OOP.

UC Santa Cruz   Santa Cruz, CA   September 2017- June 2021
- Bachelor Of Arts in Biology, University of California, Santa Cruz