

Lola Marrero

Software Engineer

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SKILLS

Languages Javascript, Python, HTML5, CSS3, C++,

Frameworks/Tools: React, Redux, Express, Node.js, Flask, Sequelize, SQLAlchemy, PostgreSQL, Git, MongoDB, AWS

Key Skills: Pair Programming, Test-Driven Development (TDD), Object-Oriented Programming (OOP), REST APIs

WORK EXPERIENCE

Software Engineer - University of California, Santa Cruz

Oct 2024 – Current

- Hired by UC Santa Cruz's Computer Science & Engineering Department (via Prof. Daniel Fremont) to support development and infrastructure of [Scenic](#)—an open-source, domain-specific probabilistic programming language for modeling, training, and testing environments for autonomous systems.
- Triage incoming GitHub issues and pull requests, conducted reviews, and merged fixes to keep Scenic's codebase healthy
- Developed GitHub Actions workflows and pytest test suites to run weekly CI and benchmark tests, ensuring regressions are caught early
- Enhanced AWS-based CI by scripting EBS snapshot → volume → test → teardown cycles, reducing cloud costs by 40%
- Integrated and maintained multiple simulator interfaces (MetaDrive, CARLA, AirSim), keeping support current with latest releases
- Upgraded dependency management (pyproject.toml) and code to support newer Python versions and evolving package requirements
- Diagnosed and fixed a memory leak in Scenic's CARLA rendering logic, improving stability for long-running simulations
- Updated and expanded Scenic documentation—API references, tutorials, and user guides—to streamline developer onboarding

Freelance Full Stack Software Developer - Cod Mountain Fish Co., Santa Cruz, CA | [live site](#)

Nov 2023 - Oct 2024

- Created a comprehensive web app, developing both the front-end and back-end to meet client needs.
- Designed and implemented a user-friendly front-end interface using Tailwind CSS, JavaScript, and React, praised for its responsiveness and aesthetic appeal.
- Engineered a robust back-end architecture with Flask and MongoDB, significantly improving data processing efficiency and security.
- Developed a booking system with an availability calendar, allowing users to view and book available dates easily.
- Integrated a secure online payment system, ensuring seamless and safe transactions for users.
- Developed a captain dashboard that allows the owner to manage bookings, block days on the calendar, upload fish reports, add photos, and more.

PROJECTS

Lemon Attire (JavaScript, React, Redux, HTML, CSS, Python, Flask, SQLAlchemy, Postgres, AWS S3)

[live](#) | [GitHub](#)

A full-stack e-commerce web app, offers an enhanced shopping journey for clothing enthusiasts.

- Engineered a user-centric front-end for smooth browsing and item categorization, showcasing product versatility with multiple images and color choices.
- Designed a well-structured database using SQLAlchemy and PostgreSQL to manage product variations and maintain dynamic order updates.
- Utilized Redux and React to monitor and update the cart's item count in real-time, ensuring a seamless shopping experience.

Bone Apple Teeth (JavaScript, React / Redux, HTML, CSS, Python, Flask, SQLAlchemy, Postgres)

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A responsive full stack web application inspired by OpenTable developed as a group project.

- Collaborated using effective communication and a Kanban board, ensuring timely project completion.
- Developed a 'Favorite' feature with React's useState hook and Redux, enhancing user engagement and personalization.
- Employed "lazy joined" techniques to optimize database efficiency and ensure seamless navigation.

EDUCATION

App Academy - Immersive full-stack software development course with <3 % acceptance rate.

Sept 2022- Sept 2023

Cabrillo College, Santa Cruz - Intro to C++ Programming, Advanced C++ Programming

Jan 2020 - Jan 2022

University of California, Santa Barbara - Bachelor's in Sociology and Bachelor's in Spanish

Sept 2011 - Sept 2013