Madelyn Romberg

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TECHNICAL SKILLS

Languages - Javascript, Python, Typescript, SQL, HTML, XML, CSS, Regex, Markdown Frontend - React, React Native, React Testing Library, jQuery, Axios, Jest, Jasmine Backend - Node is, Express is, Flask, Django, SQLAlchemy, PostgreSQL, MongoDB, Pytest Other - Unittest, Integration test, Git, Github, AWS, Debugging, TDD, OOP, Google Earth Engine, Figma

WORK EXPERIENCE

Software Engineer Intern

Numbers API

Developed Numbers API V2, a **RESTful** number trivia API supporting 17,000+ clients per month, as a modular ٠ application implementing Flask Blueprints to improve the legacy codebase's issues of scalability and maintenance

- Built web scraping scripts using Beautiful Soup that increased generation of new API content by 25% ٠
- Designed and engineered the homepage mobile app in React Native with interactive widgets to the API content •
- Ensured new code maintained 95% test coverage with unit and integration tests using Jest

Research Intern

NASA Jet Propulsion Laboratory

- Researched statistical relationships between landscape characterizations and their impacts on air quality for air quality forecasts, climate predictions and the formulation of new satellite and aircraft missions
- Processed raw satellite data from Earth Engine Developers and NASA Open Data using Google Colaboratory and ٠ **Google Earth Engine** to create active fire maps and data visualizations

Digital Historian, Special Collections

Los Angeles Public Library

- Directly led the research and development of a website with an interactive map based on research in the digital • archives collections using WordPress, ArcGIS, and HTML, boosting community access to 10,000+ local histories
- Facilitated cross-collaboration between departments and investors through biweekly Zoom meetings •

TECHNICAL PROJECTS

Pix.lv

A full-stack photo editing application using a React, Flask, and PostgreSQL

- Built a photo gallery utilizing **React** to leverage component reusability and minimize browser refresh when interacting with the large image collections
- Engineered image storage using AWS S3 to ensure scalability and reliable data storage as the image collection • increases in response to user uploads
- Extracted image EXIF data using Pillow and stored in **PostgreSQL** to enable image-based searching of gallery • Job.ly April 2023 - May 2023

A full-stack job search platform using React, Node, Express.js, and PostgreSQL

- Built a front-end UI using React to redirect load-time to mounting, enhancing the site navigation UX
- Developed and tested API with Express and Jest to return company and job results based on optional filtering • criteria, providing each client with tailored job listings
- Implemented authorization and authentication security using **middleware**, limiting restricted requests to the API •

EDUCATION

Rithm School June 2023 Full Stack Web Development Bootcamp San Francisco, CA University of California, Los Angeles (Honors College, Cum Laude) March 2022 B.S. Atmospheric and Oceanic Sciences, B.A. History Los Angeles, CA

Jan. 2022 – June 2022

June 2021 – July 2022

Pasadena, CA

May 2023 – June 2023

San Francisco, CA

Los Angeles, CA

May 2023

Live Demo | Github

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