# **Cristian Morales**

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### **Technical Skills**

TypeScript · JavaScript · React · Redux · Node.js · Express · HTML5 · CSS · Sass · Tailwind · PostgreSQL MongoDB · Jest · SuperTest · webpack · Vite · Git · GitHub · Docker · C++ · VBA · Python · PromQL · Grafana

# **Engineering Experience**

## **Docketeer · Software Engineer**

Jul 2023 - Present

- Improved Container Log fetching speed, achieving a 70x improvement in API fetch time per 10,000 logs by optimizing backend Bash command construction, and message parsing
- Updated the Container Logs Tab using React by adding Date Picker components to give consumers an intuitive interface to filter by a date and time range to access running and stopped container logs
- Implemented a Search feature in the Container Logs Tab utilizing React with regular expressions, allowing consumers to search for Container Log messages and select specific rows to export to CSV
- Introduced a Dev-Browser mode by configuring Docker Compose YAML files and Node.js, circumventing Docker Desktop limitations by enabling hot module reloading, and saving 16 hours of development time per week
- Opted for Redux and Redux Toolkit for efficient state management and utilized Redux Thunk for asynchronous API requests, resulting in clearer state documentation and easier debugging with Redux DevTools
- Engineered Container and Kubernetes metric dashboards by configuring Grafana files for constructing dashboards and PromQL to scrape for relevant data, enabling consumers to analyze application performance
- Created a Configurations feature that uses a PostgreSQL instance to store user-defined exposed ports for Prometheus to scrape, allowing consumers more flexibility in defining Kubernetes and Container data collection

#### Oilfield Equipment Marketing · Engineer

Sep 2021 - Jul 2023

- Programmed a Proportional Integral Differential (PID) control script in C++, ensuring precise maintenance of a
  user-specified amperage, saving technicians approximately 8 hours in initial system setup time per week
- Developed VBA scripting to automate custom data collection and visualization, allowing technicians to perform more streamlined inspection services, resulting in over 95% consumer satisfaction
- Orchestrated the training, supervision, and leadership of a team of 8 engineers in company processes and engineering design principles

## **Open Source Applications**

Rewatch Time · Database App for the Show Adventure Time

- Developed a client side single page application utilizing React with Tanstack Query and Tailwind for reduced ramp up time and efficient state management of asynchronous calls
- Built out a custom RESTful API with Node.js, and Express to interact with the database, and handle authorization, to allow for share custom types between the frontend and backend, and rapid development time
- Designed, populated and launched a custom PostgreSQL instance and schema for episodes, seasons, series, arcs, users and user data for custom user experiences, and reliable data transfer

GetSwell · Positivity-Centric Social Media Fitness App

- Incorporated unit and integration tests in the backend API using Jest and Supertest, achieving 100% testing coverage, and improving the stability of the codebase by ensuring code functionality during refactoring
- Implemented unit and end-to-end testing of React components using Cypress, achieving 100% application test coverage, ensuring further stability of the application during the development process

### **Talks and Publications**

- Navigating the Seas of Docker with Docketeer v15.0 · Medium Article
- The Internet of Things · Bractlet Software Engineering Tech Talk Series

#### Education

University of Texas at San Antonio · B.S. Mechanical Engineering · 2018

#### Interests

Brazilian Jiu-Jitsu · Musicianship · Instrument Collecting · Drawing · Mindfulness and Meditation · Gaming