# Santiago Cravino

# Experience

# OSLabs | Software Engineer

July 2024 - Present

Next.js, React, TypeScript, Docker, Kubernetes, PostgreSQL, MUI

- Engineered "Morpheus," an open-source full-stack Next.js application providing real-time Docker metrics and Kubernetes visualizations using react-graph-vis. Reduced load times to 1.3 seconds with server-side rendering, improving cluster oversight efficiency.
- Architected a microservices architecture with Docker Compose, integrating essential monitoring tools (cAdvisor, Prometheus, Grafana) for performance. Utilized named volumes in Docker setups, ensuring high availability and minimizing environmental drift.
- Built a real-time monitoring platform using cAdvisor, Prometheus, and Grafana. Designed custom PromQL queries and Grafana dashboards, cutting resolution times by 60% with proactive resource management.
- Designed and optimized PostgreSQL schemas for container metrics, leveraging connection pooling and custom fetch configurations. Implemented query optimization techniques, reducing model query redundancy by 30%.
- Utilized AWS Bedrock for predictive analytics and integrated OpenAI for handling user queries. Improved resource allocation and reduced scaling response time by 10% through AI-driven adjustments.
- Adopted TypeScript across the codebase to improve code quality, reducing bugs by 15% through strong typing and compile-time error detection.
- Improved app stability with Jest testing in a Next.js environment, achieving 78% test coverage. Reduced post-launch bugs and shortened development cycles.
- Enhanced UX with dynamic visualizations using Recharts and Vis.js, providing real-time system metrics and Kubernetes layouts for improved system monitoring.

## Flexport | ICQA & CI Manager

January 2024 - June 2024

SQL, Metabase, Snowflake, VBA Macros, Excel

Phillipsburg, NJ

• Revamped warehouse operations using SQL and Metabase analytics, providing real-time performance insights. Implemented prediction algorithms to reduce shipping errors by 15% and improve packing efficiency by 30%.

# Amazon | Area Manager

May 2023 - December 2023

VBA Macros, Lean six Sigma Yellow Belt

Sacramento, CA

• Led SME efforts for Amazon's ADTA system in the Northwest region, developing SOPs and improving package sorting. Increased redirect efficiency and achieved a 99.85% on-time delivery rate for 75,000+ daily packages.

#### Projects

#### LLM Agent TestGen | OpenAI API, NPM package, Microsoft AutoGen

• Created a Node is package for automated test generation, leveraging OpenAI's Codex API and Microsoft Autogen agents to iterate. Reduced manual iterations by approximately 3-4 per development cycle, enhancing testing efficiency.

## NightSky Navigator | React, Redux, Node.js, Express, RESTful APIs, MongoDB

- Built a celestial navigation tool using Redux Toolkit for state management, integrating three location-based APIs to provide real-time user positioning and celestial event tracking.
- Developed a RESTful API for an astronomy app with Node is and Express, utilizing Redis caching to provide fast, real-time access to satellite imagery, moon phases, and star positions.

## Job Finder Application | Google Search API, PostgreSQL, OAuth 2.0

- Integrated Google Custom Search API into a job listings platform, aggregating real-time job postings from multiple sources. Enhanced user experience by providing up-to-date employment opportunities.
- Secured platform with OAuth 2.0 and encrypted JWTs, safeguarding data privacy. Streamlined user authentication for a more secure and efficient job search experience.

#### Technical Skills

Languages: JavaScript, TypeScript, HTML/CSS, Python

Technologies/Frameworks: React, Redux, Next.js, Node.js, Express, Autogen, Tailwind, PostgreSQL, MongoDB, Docker, Kubernetes, AWS, Cadvisor, Prometheus, Grafana, Webpack, Vite, Jest, Cypress, OAuth, RESTful APIs, Sockets

#### Education

## Rutgers University

Bachelor of Science in Business Analytics & Information Technology

New Brunswick, NJ

## Public Talks / Publications

Tech Talk: E2E Testing With Cypress

Medium Article: Morpheus Product Launch