# **Kathleen Fregoso**

## **Professional Experience**

## **Co-creator, Software Engineer,** *QMantis* □

01/2022 - present

QMantis is an open-source, easy to set up observability solution for GraphQL APIs, enabling seamless analysis of slow requests, errors, resolver performance, and identification of backend bottlenecks.

- Created telemetry data pipelines: generating (OpenTelemetry), exporting (OpenTelemetry Collector, Prometheus), storing (Promscale/TimescaleDB), and visualizing (Grafana) metrics and traces data.
- Designed custom express-graphql middleware to collect real-time request rate, error rate, and latency.
- Captured and stored real-time metrics and traces data into Promscale/TimeScaleDB.
- Configured Grafana dashboards for visualizing and analyzing traces and metrics data.
- Improved the readability of GraphQL-specific trace data by adding custom error tags and metadata.
- Prototyped two additional/alternative Node.js GraphQL servers: a framework-agnostic apollo-server with observability plugins and a custom-built server for Express-based backends.
- Built qmantis-express, an NPM package that abstracts instrumentation of metrics and traces using OpenTelemetry SDKs.
- Automated deployment of QMantis architecture using Docker.
- Co-authored technical case study and documentation: https://gmantis.co ☑
- Collaborated with a remote team of 4 engineers across 3 time zones (daily standups and pair programming).

## **Software Engineer,** *Self-Employed*

2020 - 2022

- Zello: Trello-inspired Kanban board (React/Redux, Node.js/Express, MongoDB)
- Chest Bin: Database-backed app to collect and inspect webhooks (Node.js/Express, React, MongoDB, Bootstrap, socket.io)
- AirFleet: App that allows users to filter routes by airline and airport (React)
- ShoppingCart: Database-backed e-commerce app (React, Redux, MongoDB, Node.js/Express)
- Contact Manager: Web app for managing contacts with an async search UI (JavaScript, Handlebars, CSS, HTML)

**Various Roles** 2016 – 2021

Led grant writing, fundraising, community outreach, and youth education initiatives for various non-profits.

#### Skills

#### Backend

Node.js, Express, Go, SQL, PostgreSQL, MongoDB, RESTful APIs, GraphQL, TimescaleDB

## Misc. Technologies

Docker, Git, Github, Jest, OpenTelemetry, Grafana, Prometheus, Jaeger

#### Frontend

JavaScript (ES6+) / TypeScript, React, Redux, CSS, HTML, Handlebars, Bootstrap

#### Cloud

DigitalOcean, AWS, Heroku

### **Education**

**Software Engineering,** Launch School

2020 - 2022

**MSW,** University of California - Los Angeles (UCLA)

2015 - 2017

**BA, History,** *University of California - Los Angeles (UCLA)* 

2010 - 2014