

Alexander Merola

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TECHNICAL SKILLS

Programming Languages & Frameworks: Go, Python, JavaScript, React, Swift, SwiftUI, HTML, CSS, JSON

Development & Deployment Tools: REST & gRPC APIs, CI/CD, Git, GitHub Actions, Docker, Kubernetes, AWS

SOFTWARE PROJECTS

Merola Station - Full Stack Model Train Collector App

- Developed a robust **full stack** web application utilizing **Go, React, and PostgreSQL**.
- Implemented **CI/CD** with GitHub Actions, containerized with **Docker**, and deployed on **AWS** (RDS, EC2, EKS).

Mom's Recipes - Recipe Storage App (Backend)

- Engineered both **gRPC** and **REST** APIs with Go and PostgreSQL, integrating a **gRPC gateway** for seamless RESTful/JSON to gRPC conversion.
- Ensured security through Paseto for **session management** and leveraged go-swagger for comprehensive documentation.
- Implemented CI/CD practices using Docker and GitHub Actions for reliable and efficient deployment.

Google Sheets Pixel Worksheet Generator

- Engineered an innovative tool for creating high-quality pixel art worksheets, using **Python, PIL, and Matplotlib**.
- Reduced worksheet creation time from hours to minutes, automating conditional formatting and using Google Sheets API
- Delivered significant value with engaging, interactive worksheets, leading to **over 1,000 sales on TeachersPayTeachers**.

PROFESSIONAL EXPERIENCE

Full-Stack Software Engineer, Livvng, Inc. (Pre-Seed Startup)

Saint James, NY | Feb. 2023 – July 2023

- Collaborated directly with the CEO to **develop a Minimum Viable Product (MVP)**.
- Developed a **RESTful API** using Go, along with an **iOS app** using Swift and SwiftUI.
- Managed database operations using **PostgreSQL** and **AWS S3** for storage.
- Implemented secure authentication flows (**PKCE**) and integrated third-party sign-ins.
- Developed a **3D Building Floor Plan App** using Swift, SwiftUI, and ARKit, reducing external dependencies.

Teacher, Middle School Team Leader, Math Coach, Round Lake Charter School

Mount Dora, FL | Aug. 2017 – May 2022

- Instructed various subjects including Algebra, Computer Science, and Critical Thinking.
- Played a key role in developing and implementing middle school policies and curricula.
- Led and trained a team of 15 middle school teachers, focusing on cohesive instruction and policies.
- My Algebra students achieved the **highest mean scale score in the state** on their end of course examinations.
- Recognized as **Teacher of the Year** for the 2021-22 academic year.

High School Math Teacher, Alee Academy Charter School

Eustis, FL | Aug. 2014 – May 2017

EDUCATION

Stony Brook University–SUNY

Post-Baccalaureate Work in Mathematics | June 2012 – May 2013

Colgate University

BA in Philosophy | May 2011