

# Alexander Merola

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## TECHNICAL SKILLS

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**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

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### [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

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### **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 as one of three founding teachers.
- Led a team of 15 middle school teachers, and 8 grade 4-5 math teachers, focusing on cohesive instruction and policies.
- My Algebra students achieved the **highest percentage of Level 5 achievement scores, and 8th highest mean scale score**, on their end of course examinations in the state of Florida.
- 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

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### **Stony Brook University–SUNY**

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

### **Colgate University**

*BA in Philosophy | May 2011*