

Yoav Levanoni

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[github](#) | [linkedin](#)

EDUCATION

Bachelor of Science in Industrial Engineering, Minor in Computer Science

Sep 2023

California Polytechnic State University - San Luis Obispo

GPA: 3.63/4.0 Minor GPA: 4.0/4.0

SKILLS

Languages Java | TypeScript | Terraform | Python | C | PostgreSQL | TailwindCSS

Technologies React.js | React Native | Expo | Next.js | Spring | Harness | AWS EKS/RDS/Lambda | Kubernetes | Firebase

Certifications AWS Certified Solutions Architect (SAA-C003)

EXPERIENCE

Capital Group Companies

August 2023 - Present

Software Engineer

Irvine, CA

- Designed and implemented a lift-and-shift solution for the application's orchestration service to EKS. Developed the service's required Terraform modules, helm charts, lambdas, and application code. Presented on the orchestration service to engineering leadership to promote adoption by other legacy application teams migrating to the cloud, resulting in its adoption by two other legacy application teams migrating to the cloud.
- Rearchitected and implemented the application's legacy SWIFT messaging service in the cloud. Decouple the SWIFT messaging service from the monolithic architecture, utilized asynchronous message queues for inter-service communication, and refactored the service to use modern programming packages.
- Migrated and containerized batch processes from a legacy SaaS platform to a modern, cloud-based Spring architecture, eliminating dependencies on the SaaS platform and on-premise servers.
- Developed and implemented robust CI/CD pipelines for multiple cloud services, enhancing team efficiency and enabling automated, error-free deployments across the organization.

PERSONAL PROJECTS

Trivi.ai

Mar 2023 - Present

Mobile Developer

Irvine, CA

- Released Trivi.ai, an innovative iOS Trivia app using React Native with EAS and Expo Router, creating a charades-style game where categories are dynamically generated based on user input through OpenAI API integration.
- Implemented a comprehensive backend with Firebase services, handling user authentication, data storage, and real-time interactions seamlessly.
- Employed Tamagui and Moti to style and optimize the user interface, focusing on intuitive design elements that improve user experience and engagement with the game.

OptiRunGen.com

June 2022 - May 2024

Full Stack Developer

San Luis Obispo, CA

- Pioneered the first application using linear programming to generate optimal running routes, enhancing route planning for runners in unfamiliar locales by incorporating user-defined criteria such as distance, terrain, and elevation.
- Engineered a sophisticated model that extends the Asymmetric Traveling Salesperson Problem (ATSP) framework to process street networks and optimize route properties, incorporating innovative constraints for distance, elevation, and route friendliness.
- Integrated modern cloud technologies and open-source tools including Gurobi Optimization as a Service (SaaS) and OpenStreetMap for backend processing, ensuring efficient data handling and route computation.
- Authored and presented findings in a detailed academic paper, establishing a foundation for future research and development in applying linear programming to real-world route optimization challenges.

PUBLICATIONS

- **Levanoni**, Works, da Silva, and Speece, "A Linear Programming Application for Generating Running Routes Based on Individual Preferences," *2024 IISE Annual Conference and Expo*, Montreal, Canada.

VOLUNTEERING

- Organize annual in-person donor recruitment events with the *National Marrow Donor Program*, added over 350 potential donors to the blood and bone marrow registry.