

Timothy Dacalos

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EDUCATION

University of California, Irvine

BS, Computer Science

Sep 2022 – Jun 2026

Irvine, CA

- Campuswide Honors Collegium (Sep 2022 - Jan 2026)

EXPERIENCE

Donald Bren School of ICS

Learning Assistant

Sep 2025 – Jun 2026

Irvine, CA

- Facilitated lab sections for 120+ students across 3 quarters, conducting 1-on-1 code reviews to diagnose student syntax errors, indexing bugs, and logic issues in Python.
- Relayed core instructional objectives and assignment clarifications from the lead TA, providing starter code examples and walk-throughs to reinforce introductory concepts like lists and loops.

PROJECTS

[NextGenPicks - Fantasy Sports Research App](#) | Swift, Python, Firebase

Jan 2026 – Feb 2026

- Architected a full-stack iOS application using SwiftUI and Firebase to automate 200+ NBA player prop analyses daily with a Python backend.
- Reworked player-prop retrieval with hash-map based indexing and cached lookups, cutting daily fetch time from 10 minutes to 3 minutes.
- Built a Python ranking pipeline combining matchup strength and historical hit rates; in a 3-week backtest, it improved pick hit rate by 20% and reduced average prediction error by 15% versus the prior heuristic.
- Automated performance tracking by exporting daily outcomes to Google Sheets.

Fabflix - Movie Database | Java, MySQL, AWS, Docker, JavaScript

Apr 2025 – June 2025

- Implemented a MySQL primary-secondary setup with application-side read/write routing and replica-failure handling, validating continued query service and consistent reads during failover tests.
- Orchestrated a multi-service deployment on AWS EC2 using Docker and Kubernetes, managing external traffic for load-balanced instances.
- Engineered a high-performance ETL pipeline in Java using a SAX XML parser to ingest 50,000+ movie records across movies, stars, and cast relationships.

[ShazAnime - Anime Song Recognition](#) | React, TypeScript

Dec 2024 – April 2026

- Built and deployed a full-stack React/FastAPI audio recognition app identifying anime openings via microphone input, integrating the AnimeThemes GraphQL API to surface matched opening videos in under 3 seconds.
- Engineered a multi-strategy Python matching pipeline with fallbacks and JSON translation dictionaries to resolve Japanese/English name discrepancies across APIs, eliminating the majority of false negatives.
- Enhanced recognition latency from 7s to 3s and eliminated all hosting and API costs by migrating to ShazamIO, containerized with Docker and redeployed on Render.

TECHNOLOGIES AND LANGUAGES

- Languages: Python, Java, C++, C, JavaScript, TypeScript, HTML/CSS, Swift
- Technologies: React, Angular, MySQL, Postgres, AWS, Docker, Git, Tailwind CSS, Node.js
- Other: REST APIs, Version Control, FullStack Development, Data Structures and Algorithms, System Design