

Alex Titov

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EDUCATION

BS, Computer Science and Engineering, University of California, Merced

May 2026

Relevant Courses: Data Structures and Algorithms, AI, Networking, Full-Stack Web, Computer Vision, Software Engineering

WORK EXPERIENCE

Software Engineer Intern | YsoDirty

Jan 2025 – Current

- Spearheaded end-to-end development of a full-stack, cross-platform mobile car wash marketplace, enabling customers to book home-service car washes
- Developed the frontend using React Native with Expo, TypeScript, and NativeWind, creating a responsive, user-friendly app for iOS, Android, and Web, facilitating service selection, location/time setting, and booking management.
- Engineered backend RESTful APIs in Go with Gin framework, integrating PostgreSQL (AWS RDS) for persistent data storage, AWS S3 for image storage, and Redis for caching and real-time chat functionalities.
- Designed and implemented a matching algorithm to optimally pair customers with WashPros based on geographic proximity, availability, and past experience ratings.
- Integrated and maintained multiple third-party services, including payment processing with Stripe (webhooks), identity verification and background checks via Checkr (webhooks), SMS notifications with Twilio, email services through AWS SES.
- Developed robust real-time messaging infrastructure utilizing Redis and WebSockets, ensuring high availability by persisting chat histories to PostgreSQL.
- Established a comprehensive CI/CD pipeline for backend services using GitHub Actions, automating Docker image builds and deployment through AWS Lambda to continuously deliver latest stable releases to production.
- Managed full infrastructure deployment on AWS, leveraging EC2, ECR, EKS, RDS, SES, Route53, and Elastic IP, achieving high reliability, scalability, and 99.9% uptime.

Software Engineer Intern | ZetOrder

June 2024 – Current

- Led development of an iOS app in SwiftUI to capture and structure LLM training data through voice and text input, enabling seamless data ingestion for AI model refinement.
- Built and maintained backend services in Go, supporting real-time AI chat via WebSockets, JWT-based authentication, token refresh flows, and secure large file uploads to AWS S3.
- Designed and deployed MoneyMap, a full-stack financial advisory platform allowing users to chat with AI advisors after completing onboarding via Typeform; implemented data pipeline from PostgreSQL to the AI model, enabling dynamic, context-aware conversations.
- Developed affiliate-facing Web Dashboard using React, TypeScript, Tailwind, and Go, empowering partners to track referrals and earnings in real time through RESTful APIs and secure login sessions.
- Refactored legacy Angular codebase to React, resulting in 50% faster load times and increased frontend maintainability.
- Integrated Google Cloud Firestore and Google Authentication for secure user access and scalable backend data storage.
- Wrote unit and integration tests using React Testing Library, Mocha, and Go test frameworks, with CI integration for automated quality assurance.
- Dockerized and deployed all services to cloud infrastructure using Git, Makefile scripts, Agile practices, and modern DevOps.

Software Engineer Intern | University of California, Merced

Aug 2023 – May 2025

- Built and deployed MobileID, a student-facing PHP application enabling over 9,000+ students to access dining halls and events via a secure dynamic barcode system, reducing entry fraud by 95% by implementing real-time validation.
- Developed Alynx, an AI-powered chatbot for UC Merced using React, Tailwind, Next.js, Node.js, and OpenAI's API, featuring multilingual vector search, text-to-speech, and voice recognition for accessibility. Aggregated data using web scraping and vector databases (Pinecone/Weaviate), delivering real-time answers based on current events and university web content.
- Dockerized and deployed full-stack applications using Kubernetes for scalable, fault-tolerant production environments across services like Alynx and MobileID, ensuring 99.9% backend uptime.
- Created DCID, a digital campus ID system with Apple Wallet and Google Wallet integration, increasing mobile adoption and convenience for campus verification workflows.
- Designed and implemented facial recognition-based check-in system for high-security university exams and events using Python, OpenCV, and deep learning, interfacing with OracleDB, MySQL, and PostgreSQL to validate student identities.
- Integrated Google Maps SDK for real-time wayfinding and accessibility features in the mobile client, enhancing user navigation across campus.

- Developed and launched an innovative mental health-focused social media app designed specifically for teenagers, aimed at enhancing emotional support and strengthening friendships through interactive and personalized features.
- Developed an iOS client in SwiftUI and a high-performance backend REST API in Go (Gin framework) with JWT authentication, real-time WebSocket communication, and image storage.
- Designed and deployed scalable AWS infrastructure utilizing EC2, EKS, ECR, DynamoDB, S3, and Route53 to achieve high availability, security, and seamless scalability.
- Implemented comprehensive unit testing, A/B tests, and robust CI/CD pipelines to optimize development workflows and accelerate deployment cycles.
- Recruited, mentored, and led a technical team of 8 software engineering interns across frontend and backend, ensuring quality code and agile development practices.
- Managed full App Store deployment lifecycle, regularly releasing updates and enhancements based on analytical insights and user feedback.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, Go, Swift, Java, PHP, C/C++, SQL

Frameworks & Libraries: React, React Native, Next.js, Node.js, Express, Tailwind, Gin, SwiftUI , Vite

DevOps & Cloud: Docker, Kubernetes, AWS (EC2, ECR, EKS, RDS, SES, S3, Route53, Lambda), GCP (Firestore, Cloud Functions), Git, CI/CD, GitHub Actions

Databases & Caching: PostgreSQL, MySQL, Redis, OracleDB, Firebase, Pinecone, Weaviate

AI & ML: OpenAI API, Code Generation, LLM pipelines, Agentic workflows, TensorFlow, Vector Databases (Pinecone, Weaviate)

Security & Auth: JWT, OAuth, Identity Verification (Checkr), WebSockets, Secure File Uploads