

Nikhil Akiti

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EDUCATION

University of California, San Diego

Sep. 2023 – Jun. 2027 (Expected)

B.S. Computer Science — GPA: 3.6

La Jolla, CA

- Regents Scholar (Awarded to top 1% of students) - University of California Honors Program
- Coursework: Data Structures, Object Oriented Programming, Analysis of Algorithms, Software Engineering, Machine Learning, Operating Systems, Web Technologies, Database Design, Recommender Systems

EXPERIENCE

Incoming Software Engineering Intern

Jun 2026 – Sep 2026

Apple

La Jolla, CA

Incoming Software Engineering Intern

Mar 2026 – Jun 2026

Oklahoma City Thunder

Remote

Software Engineering Intern

May 2025 – Present

University of California, San Diego - IT Services

La Jolla, CA

- Led major version upgrade of JupyterHub platform serving 10,000+ students, deploying on Kubernetes with Helm/Docker and eliminating 15+ critical security vulnerabilities
- Resolved complex migration issues including Python template refactoring (Jinja2/Bootstrap), achieving 100% backward compatibility with zero downtime during production deployment
- Improved code quality by 40% by implementing automated SonarQube analysis in Bamboo CI/CD pipeline with custom Bash automation scripts
- Reduced technical debt by 50% by integrating centralized Python API client across 15+ microservices, eliminating duplicate error handling logic

Undergraduate Research Assistant

Oct 2023 – Jun 2024

University of California, San Diego

La Jolla, CA

- Co-authored [academic paper](#) on type system improvements, implementing enhanced Rust ORM library with generic refinement types for improved compile-time safety guarantees
- Built web apps using the Rocket.rs web framework, Diesel ORM, and PostgreSQL that implemented CRUD functionality, JSON data, and cookies that served as testbeds for the refinement type checker
- Migrated 3 production web applications from Haskell to Rust, refactoring functional programming patterns to idiomatic Rust for improved type safety and performance

PROJECTS

Focal - Offline-first, Real Time Photo App | React Native, Node.js, Express, MySQL, Prisma, Redis

- Architected mobile application with offline-first sync using WatermelonDB local database and optimistic UI patterns, implementing conflict resolution eventual consistency for reliable photo delivery in poor network conditions
- Built scalable backend handling concurrent photo uploads via AWS S3 presigned URLs, WebSocket-based real-time broadcasting, and background job processing (BullMQ/Redis) for image optimization
- Implemented resilient upload system with outbox pattern, exponential backoff retry logic, and conflict resolution ensuring zero photo loss across network failures

ChartBreaker - Crowdsourced Music Ranking | React, Next.js, TS, Firebase, Google Cloud, Redis

- Designed serverless data aggregation system on Firebase Cloud Functions computing Wilson-score confidence intervals and time-decay weighted rankings to extract meaningful trends from noisy voting data
- Architected real-time leaderboard system with Firestore live subscriptions, implementing efficient document structure and compound indexing strategies to minimize read costs while maintaining sub-second update latency
- Built resilient third-party API (SoundCloud API) integration layer with Redis caching, circuit breaker patterns, and rate limiting to handle external service failures and traffic spikes gracefully

SKILLS

Languages: JavaScript, TypeScript, Java, Python, C++, HTML/CSS, SQL

Frontend Technologies: React, Next.js, React Native, Tailwind CSS, Zustand, TanStack Query, Web Sockets

Backend/Cloud: Node.js, Express, MySQL, Sequelize, Diesel, AWS (S3), Azure, GCP, Docker, Kubernetes

Developer Tools: Git, Bash, VS Code, Bamboo, BitBucket, Vim, Cursor, Jira