MICHAEL MCINTOSH

Software Engineer

Issaquah, Washington, United States

michaeldmc58@gmail.com

PROFILE

Client-first Software Engineer and U.S. Navy veteran with proven, production experience delivering secure, scalable apps across mobile and web, combining clean architecture with strong cloud fundamentals. Microsoft Software & Systems Academy graduate (Cloud Application Developer) with hands-on in Azure, AWS, and Google Cloud; fluent in Flutter, React, TypeScript, C++, C#, Dart, and Python. Known for reliability under pressure, clear communication, and shipping thoughtfully developed, privacy-safe features.

RECENT PROJECTS

❖ Golf Gooder, Golf Stat Tracking App (iOS & Android)

Lead Mobile Developer | Stack: Flutter/Dart, Firebase (Authentication, App Check, Cloud Functions, Storage, Analytics), Google/Apple Sign-In, GPS/Location Services

- Architected and delivered a production-ready, cross-platform app that records shot-by-shot rounds and surfaces advanced performance insights with a smooth, GPS-powered UX.

- Implemented secure third-party authentication (Google/Apple) with Firebase Authentication and App Check, enforcing device/app attestation and least-privilege access patterns.

- Integrated GPS/location services to auto-detect holes/teeboxes and validate shot context, optimizing power usage and accuracy with debounced updates and background safeguards.

- Wired Analytics events (screen/feature funnels, retention, cohorting) to guide roadmap decisions; defined KPIs and created dashboards to monitor adoption and crash-free sessions.

- Prototyping AI/ML features to benchmark users against handicap-similar peers (peer cohorts, trendlines, anomaly flags) and generate personalized strategy insights.

- Shipped social features (profiles, follows, comments/messaging, reactions) to increase engagement while enforcing safety controls and abuse-resistant rate limits.

- Drove quality with feature flags, structured error logging, and defensive null/edge-case handling; maintained clean architecture, testable modules, and clear separation of concerns.

❖ Photo Journal (Web)

Lead Developer | Stack: Flutter (Dart), Provider, Firebase Auth, Cloud Firestore, Cloud Storage, Firebase Hosting, Google Sign-In, EXIF

- Architected a modular Provider + repository pattern; designed Firestore schemas, composite indexes, and query strategies for fast filters (date/tag/user).

- Built a cross-platform photo journal app for iOS, Android, and Web (Firebase Hosting) using Flutter/Dart, enabling users to create rich, tagged entries with optional photos, activities, and location.

- Designed a Provider-based architecture (e.g., DbProvider) to separate UI from data, support offline-tolerant UX, and keep data flows predictable and testable.

- Implemented a secure image upload pipeline (progress feedback, resumable uploads) to Firebase Storage with least-privilege Security Rules

- Modeled Firestore collections for entries, tags, and "Year-in-Review" summaries, with composite indexes and query patterns for date, tag, and user filters at scale.

- Added cross-platform media handling and EXIF metadata extraction to enrich entries and support smarter search/sorting.

❖ Tutor Me AI, Human-Centered AI Tutor Website

Lead Developer | Stack: Python, Streamlit, OpenAI API, Markdown/HTML export, ARIA/WCAG, pytest

- Built a chat-based tutoring app that adapts persona to topic (e.g., Feynman for physics) and guides with Socratic prompts, not answers, to promote active learning.
- Implemented quiz generation from chat history, knowledge-check vs thought-provoking modes, and session persistence ("resume where you left off").
- Added accessibility by design: ARIA live regions, full keyboard navigation, color-blind safe palette, and screen-reader/voice ready (Web Speech API/pyttsx3 toggle).
- Shipped export pipeline (Markdown 'styled HTML) for study packs; added LaTeX auto-cleanup to render math cleanly in Streamlit.
- Designed a modular architecture (prompt system, message store, formatting utilities) with robust error handling and guardrails (no direct solutions, privacy-first data handling).
- Practiced US Gov UX principles (transparency, user control, personalization); added Settings panel with tone & follow-up controls.

EDUCATION

❖ Bellevue College .... Jan 2023 — May 2026

B.S. Software Engineering AI/ML   Bellevue, WA

COURSES

❖ Cloud Application Development .... Jun 2024 — Nov 2024

Microsoft Software and Systems Academy

❖ Full Stack Software Engineering .... Oct 2022 — Jan 2023

Code Platoon