

Andrew Mark McCloskey

Senior Mobile Engineer | React Native | Flutter | WebGL | Game Developer

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SUMMARY

Mobile Engineer with **6+ years of experience** building high-performance iOS and Android applications using **React Native** and **Flutter**. Skilled in the **full mobile development lifecycle**—from design to deployment—delivering scalable, user-centric apps. Strong background in **WebGL, Phaser.js, Three.js, and Shaders**, with additional expertise in interactive games and 3D/visual rendering. Proven track record of improving app performance, enhancing user engagement, and collaborating in fast-paced agile environments.

EDUCATION

Bachelor of Science in Computer Science
University of North Texas | 2017 - 2021

EXPERIENCE

Mobile Engineer | 07/2024 - Present

Variant Labs

- Developed **AI Game Generator mobile app** in **Flutter**, enabling users to **create their own games from text prompts** with dynamically generated levels, mechanics, and assets. [Web Site](#)
- Developed **face upload & personalization features**, allowing users to embed their own likeness or avatars into generated games.
- Implemented **social networking functionality** — users can post games, share to groups, comment, and collaborate within the platform.
- Enabled **re-generation and remixing**: users can update prompts to **evolve or remix their games** with AI, promoting creativity and community engagement.
- Designed and implemented scalable **cloud storage and media pipelines** to support game uploads, sharing, and persistent user content.
- Applied advanced **Flutter performance optimization** (Skia engine, isolates, async rendering), ensuring smooth **60fps gameplay experiences**.
- Architected **state management** (using Riverpod/Bloc or similar) to handle dynamic game data, caching, and AI results across sessions.
- Integrated **real-time notifications and activity feeds** for group interactions and collaborative remixing.
- Collaborated with designers on **Figma prototypes**, translating UI/UX into reusable Flutter widgets with responsive layouts for iOS & Android.
- Conducted **multi-device testing** across Android/iOS hardware to ensure consistent gameplay, rendering, and AI output quality.

Mobile Developer | 07/2024 - Present

TopHap

- Developed the **TopHap Explorer** mobile application from scratch, providing users with real-time access to property data, neighborhood insights, and market conditions using **React Native**, with native modules for both **iOS** and **Android**. [App Store](#)
- Integrated **Augmented Reality (AR)** for property identification, enabling users to point their phones at a property and instantly view its value, permit history, and market data using **ARKit (iOS)** and **ARCore (Android)** along with native modules in **React Native**.
- Implemented **GPS-** based property search functionality that allowed users to discover properties nearby by leveraging **react-native-maps** and **Google Maps API**, enabling efficient navigation with real-time location data, managed via **Redux- Thunk**.
- Developed real-time data synchronization using **WebSockets** and **AWS** for fetching property data, neighborhood insights, and market trends, ensuring users receive the latest information without needing to refresh the app.
- Built a Comparative Market Analysis (CMA) feature, enabling users to compare properties based on pricing, location, and features, using **React Query** to fetch and cache real estate data from the cloud efficiently.

- Integrated neighborhood analysis features, displaying information such as walkability scores, crime rates, and environmental risks for specific areas, sourced from external **APIs** and managed in the app through **React Query** and **AWS**.
- Handled complex state management with **Redux** and **Redux-Thunk**, managing asynchronous data fetching and synchronization of app states like user profiles, property data, and live updates on property listings and market trends.
- Implemented persistent storage using **AsyncStorage** to save user preferences, favorite properties, and past searches across app sessions, providing a personalized experience for each user on both **iOS** and **Android** platforms.
- Conducted rigorous testing with **Jest** and **React Native Testing Library**, ensuring that core features like **AR** property identification, real-time data updates, and **GPS** services were functioning properly across devices and operating systems.

Junior Web Developer | 07/2024 - Present

BitsWits

- Contributed to development of **cross-platform apps and web projects** using JavaScript, React, and WebGL.
- Built **interactive UI components and visual rendering pipelines**, introducing **gamification features** in client apps.
- Collaborated with senior engineers to deliver responsive, high-performance applications on both mobile and web.
- Assisted in **API integrations** with REST and GraphQL backends for real-time content delivery.
- Implemented **unit tests** for web components, ensuring better code quality and fewer regressions.
- Participated in **code reviews & agile sprints**, gaining hands-on experience in scalable project delivery.
- Contributed to **prototype game mechanics** in Phaser.js, building a foundation for later mobile game development expertise.
- Designed and implemented **responsive layouts** across devices, ensuring accessibility and usability standards.
- Assisted with **client demos & stakeholder presentations**, demonstrating progress and iterating on feature requests.
- Learned and applied **modern dev practices** (Git, Jira, CI/CD basics), preparing for senior engineering roles.

SKILL

Mobile App Development

- React Native
- Flutter
- Swift
- Kotlin, Java

Game Development & Graphics

- Phaser.js
- Three.js
- WebGL & Shaders

State Management

- Redux Toolkit
- React Query
- Zustand
- Redis

Frontend Development

- JavaScript
- React
- TypeScript
- Next.js

Backend Development

- Node.js
- Express.js
- Firebase
- WebSockets
- GraphQL

Database Systems

- MySQL, SQLite, PostgreSQL
- MongoDB
- AWS DynamoDB
- Firebase Firestore

Authentication & Security

- Firebase Authentication
- JWT
- OAuth
- Biometric Authentication

Performance Optimization

- Flipper
- React Native Debugger
- Sentry

Fabric Renderer

- TurboModules
- Skia Rendering Engine

Cloud Services & Deployment

- AWS Amplify (CI/CD, API Hosting, Auth)
- AWS S3, EC2, Lambda
- Firebase (Hosting, Firestore, Auth, Push Notifications)
- Bitrise (CI/CD Automation for Mobile)

- Fastlane (Automated iOS/Android Deployment Pipelines)

Testing & Quality Assurance:

- Jest (Unit Testing & Test Suites)
- React Native Testing Library
- Enzyme
- Test-Driven Development (TDD)

Version Control & Collaboration:

- Git
- GitHub
- Bitbucket
- Jira

Development Tools & Platforms:

- Xcode
- Android Studio
- Figma
- Sentry

AI & Machine Learning

- Hugging Face Hub
- Diffusion Models
- AI Integration in Mobile
- Retrieval-Augmented Generation
- Prompt Engineering
- AI Content Remixing