Raphael Jeonghuan Lee

Senior Software Engineer | Web & Mobile Development | Flutter • React Native • TypeScript
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SUMMARY

Senior Software Engineer with **8+ years** of experience building high-performance web and cross-platform apps using **React**, **Next.js**, **Flutter**, and **React Native**. Skilled in creating seamless user experiences across iOS, Android, and web with strong UI/UX collaboration in **Figma**. Experienced in AI-driven development, AR/VR integration, and real-time data systems using **WebSockets**, **AWS**, and scalable APIs. Passionate about designing modern, responsive interfaces, optimizing performance, and building products that combine AI, social features, and geospatial data to deliver engaging and intelligent digital experiences.

EDUCATION

Bachelor of Science in Computer Science
Texas A&M University | 2015 - 2019

EXPERIENCE

Mobile Engineer | 08/2023 - 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 | 01/2021 - 07/2023
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 | 06/2019 - 12/2020
True Prodigy Tech Solution
- Quickly learned new skills including **React.js/React Native/TypeScript** and applied them to daily tasks, improving efficiency and productivity
- Made an architecture design by using **Redux** and **Redux Saga** for state management
- Delivered user-friendly interfaces (responsive and pixel-perfect pages) to the end users.
- Directed conversation of **React** application to **TypeScript**.
- Implemented React Hooks to accelerate front end rebuild by reducing code while maintaining backwards compatibility.
- Wrote readable and bug free code by using **TypeScript** which improved the project performance.
- Used various testing frameworks including **JEST**, **Mocha**, **Cypress** to build more stable projects.

SKILL

JavaScript, React, TypeScript, Next.js, React Native, Flutter, Swift, Java, Kotlin, Android, iOS, Phaser.js, Three.js, Redis, Node.js, Express.js, Firebase, WebSocket, GraphQL, MySQL, SQLite, PostgreSQL, MongoDB, AWS DynamoDB, JWT, OAuth, Sentry, AWS (S3, EC2, Lambda), Jest, Cypress, Git, GitHub, BitBucket, Jira, Slack, XCode, Android Studio, VS Code, Figma, Hugging Face Hub, Diffusion Models, Prompt Engineering, AI Context Remixing