AYUSH MISHRA

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EDUCATION

University of Florida | Masters in computer science   **Aug 2023-May 2025**
Relevant Coursework: Analysis of Algorithms, Advance Data Structure, Software Engineering, Computer networks, Distributed Operating Systems, Computer Architecture Principle**,** User Interface Design, Introduction to Data Science.

University of Mumbai | Bachelors in Computer Engineering   **July 2018- May 2022**
Relevant Coursework: Data Structure and algorithms, Artificial intelligence, Mobile Application Development, Database Management System, Human machine interaction.

SKILLS

- **Android Development:**   Kotlin, Java, Android SDK, ExoPlayer, Jetpack Compose, Material Design 3
- **Architecture & Patterns:**   MVVM, Repository Pattern, Dependency Injection
- **Database Technologies:**   Room, SQL, MongoDB
- **Networking:**   Retrofit2, OkHttp3, RESTful APIs, WebSocket
- **Asynchronous Programming:**   Kotlin Coroutines, Flow
- **Testing & Analytics:**   A/B Testing Frameworks, Test Automation, Firebase Analytics
- **Development Tools:**   Android Studio, Git, Jira, Gradle
- **Other Technologies:**   React Native, JavaScript, TypeScript

EXPERIENCE

Mobile Application Developer / Research Assistant

University of Florida   **August 2024 – Present**
- Developing native mobile applications with geofencing capabilities and integrating third-party APIs for enhanced functionality.
- Implementing state management and component logic for efficient data flow and user experience.
- Optimizing app performance through efficient API call management and utilizing bridge for native module integration.
- Engineered a scalable backend with Express.js, designed RESTful APIs, and optimized MySQL database schema for efficient data management and real-time location-based content delivery.
- Tech Stack: **React Native, JavaScript, Express.js, MySQL, OpenAI API, Geolocation Services, Voice Recognition.**

Android Developer

Reliance Jio   **June 2022 - July 2023**
- Architected and optimized video streaming infrastructure using **ExoPlayer** and DASH/HLS protocols, achieving 10x scalability to support 22.7M concurrent users during FIFA World Cup 2022.
- Engineered real-time analytics pipeline using **Kotlin Coroutines** and **Flow** for processing streaming metrics, handling over 2600 crore video views during IPL 2024.
- Implemented adaptive bitrate streaming (ABR) algorithms and buffer management systems to reduce streaming latency by 40% while maintaining video quality.
- Built custom video player components using **Android Jetpack Compose** and **Material Design 3**, incorporating picture-in-picture mode and background playback capabilities.
- Designed and implemented caching mechanisms using **Room Database** and **WorkManager** for offline playback functionality, reducing bandwidth consumption by 30%.
- Collaborated with cross-functional teams to define, develop, and ship new features in an agile environment.
- **Tech Stack:** Kotlin, Android SDK, Jetpack Compose, ExoPlayer, DASH/HLS, Room, Retrofit2, OkHttp3, Coroutines, Flow, WorkManager, Material Design 3, Firebase Analytics.

PROJECTS

ShellHacks 2024 Hackathon Project - Interactive Learning Platform
- Architected a responsive React.js frontend with reusable UI components and custom hooks, achieving 40% faster development cycles and real-time content synchronization.
- Engineered an accessible TypeScript component library with ARIA attributes and keyboard navigation, improving application inclusivity and user experience.
- Developed interactive UI elements with dynamic quiz components and slide presentations, receiving 98% positive feedback on interface responsiveness.
- Optimized rendering performance through lazy loading and code splitting, reducing initial load time by 35% for large document processing.
- Tech Stack: React.js, TypeScript, Material-UI, React Query, Web Speech API, CSS Modules

Daily News Android App
- Developed "Daily News," an Android application providing a seamless news reading experience with an intuitive UI.
- Implemented Retrofit for efficient HTTP requests, ensuring fast and reliable data retrieval.
- Published application to Google Play Store, managing the release process and user feedback.
- Skills: Android, Kotlin, Retrofit, UI/UX Design, Mobile Application Development.