

# pappu kumar

## Full Stack Mobile App Engineer

✉ impappukrs@gmail.com ☎ 09691739594 📍 Bengaluru

### PROFILE

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Dynamic and results-driven **React Native Developer** with 2+ years of experience delivering high-performance, scalable mobile applications. Expertise in **React Native, JavaScript, TypeScript**, and integrating native modules to build seamless cross-platform apps. Proven track record in **optimizing app performance**, implementing **offline-first architecture**, and enhancing state management using **Redux Toolkit**. Skilled in **API caching strategies, network handling, and real-time data synchronization** to improve app reliability and user experience. Committed to delivering innovative mobile solutions with a focus on **scalability, smooth navigation, and user-centric design**.

### PROFESSIONAL EXPERIENCE

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**Sensegrass, Sr Mobile App Engineer** 📧

Jan 2025 – present | Remote, USA

#### Project: Munafa Version 2 Web & Mobile App

- Refactored the codebase to enhance **app performance**, ensure **high scalability**, and deliver **smooth navigation**.
- Designed and developed the entire **SME loan mobile screen flow**, including **personal details, business details, loan offers, KYC verification, loan sanction, EMI calendar, and loan details**.
- Introduced **Redux Toolkit** for efficient state management, reducing boilerplate code and improving maintainability.
- Added **Axios in a global configuration** for managing API requests, improving request handling and consistency.
- Implemented **authentication in APIs** for enhanced security.
- Integrated **Decentro API for Aadhaar and PAN card verification**, ensuring accurate identity verification.
- Incorporated **Twilio for mobile OTP verification**, improving user authentication and security.
- Integrated **real-time voice agent functionality** using **Eleven Labs with WebSocket support**, providing interactive voice responses.
- Built a scalable backend architecture for **SME business loans**, reducing loan approval time by 30%.
- Improved the **mobile interface** with **React Native**, leading to a 40% increase in user engagement.
- Integrated **real-time notifications** and enhanced **API security** for handling sensitive user information.

**Sensegrass, Mobile App Engineer**

Aug 2024 – Dec 2024 | Remote, USA

#### Project: MoneyPlant Version 2 Web & Mobile App

Designed and implemented a complete **user onboarding flow**, including **personal info collection, Aadhaar and PAN verification, address verification, and selfie-based identity verification**.

- Added **gamification elements** to the onboarding process to enhance user engagement and completion rate.


- Developed the **home screen** with dynamic dashboards displaying **gold investment**, **loans on mutual funds**, and **stock investment options**.
- Integrated **gold investment features**, allowing users to invest and track returns in real-time.
- Built the **loan management module** for mutual funds and stock-based loans, simplifying the application and disbursement process.
- Optimized **React Native components** for improved performance and responsiveness, ensuring a seamless user experience.
- Incorporated **push notifications and alerts** to keep users informed about investment opportunities and loan status.
- Implemented advanced **API security protocols** and **real-time updates** for accurate data representation.
- Collaborated with cross-functional teams to ensure a cohesive and scalable architecture across the app.
- Created APIs for all core functionalities using **Spring Boot**, ensuring high performance and scalability.
- Optimized API responses for faster load times and improved throughput.
- Implemented **secure authentication and authorization** for APIs, ensuring data integrity.
- Integrated **RESTful APIs** for seamless communication between microservices and the frontend.
- Enhanced API logging and monitoring to improve error detection and system reliability.

#### **Project: MoneyPlant Version 1 Web & Mobile App**

- Architected and developed **React Native mobile solutions** with a focus on **offline data handling**, ensuring a seamless experience during network fluctuations.
- Optimized **network request management** with global Axios configuration, improving consistency and error handling.
- Created **smooth navigation flows** using **React Navigation 6** with **custom animations**, elevating user engagement and experience.
- Implemented **offline-first architecture** using **AsyncStorage** and advanced **data caching strategies**, enhancing app reliability and reducing network dependency.
- Integrated **Cashfree payment gateway** for EMI payments, streamlining loan repayment processes with enhanced security.
- Enabled **Escrowpay services** for **secure loan disbursement** and **automated account creation** for vendors and customers.
- Developed **identity verification workflows** with **Digitap's aggregator platform**, supporting **PAN card verification**, **income verification**, and **credit report generation** through net banking integration.
- Built robust **Aadhaar-based KYC verification** and **digital loan sanction letter e-signature functionality**, improving regulatory compliance.
- Enhanced **backend architecture** using **Java Spring Boot microservices**, optimizing performance and ensuring high scalability for financial transactions.
- Improved **real-time data synchronization** between the frontend and backend using **WebSockets**, delivering faster updates.
- Developed scalable **RESTful APIs**, boosting data throughput by 18% and enhancing system reliability.
- Integrated **Next.js-based admin and partner dashboards**, resulting in a 25% reduction in load time.


## Munafa Version 1 Web & Mobile App

- Transitioned **Munafa app** from **Expo to React Native CLI**, improving app load time by 25%.
- Integrated **Cashfree payment gateway** for seamless UPI payments, improving payment success rate by 20%.
- Developed comprehensive **insurance features**, including **weather and equipment insurance**, boosting farmer engagement by 10%.
- Connected the insurance workflow with **partner and admin dashboards** by creating all required APIs for seamless integration.
- Developed APIs for **document upload** to **AWS S3 bucket**, enabling secure and scalable file storage solutions for insurance claims and verification.

**Matriot Solutions**, *Software Engineer* 

Oct 2023 – Mar 2024 | Bengaluru, India

### Project: M3-SUITE Web & Mobile App

- Independently started migrating the backend codebase to the latest **Node.js** version while collaborating closely with the **CTO**.
- Transitioned the database from **MongoDB** to **MySQL**, enhancing performance, scalability, and reliability.
- Developed **Docker as a service** to streamline deployment and improve development workflows.
- Later led a small team after onboarding a new developer, ensuring high code quality and efficient task distribution.
- Implemented **real-time updates** using **Socket.io**  and **WebSockets**, improving system responsiveness and user experience.
- Optimized backend performance, resulting in a 30% increase in API throughput and a 35% reduction in deployment time.

### Project: LM-POKEYOKE

- Designed a **Python-based logging system** for error handling, reducing issue resolution time by 25%.
- Improved system reliability and performance by 15%.
- Developed a **GUI tool using Python Tkinter** for monitoring and managing system logs, improving user experience and operational efficiency.

**Matriot Solutions**, *Developer Trainee* 

Mar 2023 – Sep 2023 | Bengaluru, India

### Project: M3-SUITE Web app

- Migrated the legacy codebase from **React version 8** to **React version 16** and later to **React 18**, working closely with the **CTO** to ensure a seamless transition. This improved performance, maintainability, and enabled modern features.
- Independently led the migration project, ensuring minimal downtime and high code quality.
- Implemented **push notification services** using **Firebase**, enhancing user engagement and real-time updates.
- Developed **Docker as a service** for scalable and streamlined deployment.
- Optimized **React components and state management**, reducing rendering time by 30% and improving overall responsiveness.
- Enhanced **API integration** and error handling for a more robust and reliable performance framework.

## BioData Web & Mobile App

- Built a **biodata web application** using **React, TailwindCSS, Framer Motion**, and **Node.js with MongoDB** as the backend, designed APIs with **authentication** and developed the **responsive UI** for seamless user experience.
- Scaled the biodata application and later migrated the database to **MySQL** for better performance and reliability.
- Developed a **biodata mobile application** using **React Native**, ensuring a seamless experience and synchronization with the web app.
- Built a **React Native mobile app** with real-time updates using **Socket.io** and **MQTT**.
- Containerized the frontend with **Docker**, enhancing deployment scalability.

## SKILLS

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**Mobile App** — React Native, TypeScript, Expo, React Navigation 6, Redux Toolkit, Context API, Hooks, React Native Reanimated, React Native paper, **Frontend** — React.js, Next.js, JavaScript (ES6+), Framer Motion, shadcn UI, Ascrnity UI, Tailwind CSS, **Backend** — Node.js, Express.js, Spring Boot, Python, **Database** — PostgreSQL, SQL, MySQL, MongoDB, **DevOps** — Docker, Kubernetes, CI/CD Pipelines, Git, GitHub, **Payment Gateway** — Cashfree, Escrowpay, **Tools** — Git, Jira, Postman, API Development & Integration, **Cloud & Integration** — AWS (S3, Lambda), Firebase, RESTful APIs, Google Maps API, Cashfree, Twilio, Decentro, **Build Tools** — Webpack, Babel., **Testing & Debugging** — Jest, Detox, Mocha, Flipper, Postman, React Native Performance Monitor

## PROJECTS

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### Real Estate Mobile Application

Developed a full-stack Real Estate app using **React Native, Node.js, Express, MongoDB**, and **TypeScript**, following a **microservices architecture** for scalability, modularity, and better maintainability. The app features **Google Authentication, dynamic property listings**, and **customizable user profiles**. An **admin-based Next.js web app** enables property management, where admins can add and list properties stored in **MongoDB**. Each service is independently deployable and communicates through RESTful APIs.

#### Tech Stack:

- **Frontend:** React Native, TypeScript, Expo SDK, Nativewind, Tailwind CSS
- **Admin Dashboard:** Next.js, Tailwind CSS, Axios
- **Backend:** Node.js, Express, MongoDB (Microservices Architecture)
- **Other Tools:** Google Authentication

#### Microservices Architecture Highlights:

- **User Management Service:** Handles user registration, authentication (Google OAuth), and profile management.
- **Property Management Service:** Manages property data, including creation, updates, and deletion.
- **Notification Service:** Sends real-time updates and alerts to users about new listings and offers.
- **API Gateway:** Centralized entry point for all services, managing authentication and request routing.
- **Scalable Deployment:** Each service can scale independently to handle increasing traffic and load.

#### Key Features:

- **Authentication with Google:** Secure and seamless user sign-ins using Google's authentication service.
- **Home Page:** Displays the latest and recommended properties with advanced search and filter functionality.
- **Explore Page:** Browse all types of properties with a clean and intuitive interface.
- **Property Details Page:** View comprehensive information, including images and key property details.
- **User Profile Management:** Customizable profiles with user settings.
- **Admin Dashboard:** Add, manage, and list properties using the Next.js web app, with data stored in MongoDB.
- **Centralized Data Fetching:** Implemented a custom solution inspired by TanStack's useQuery for efficient API calls and data management.
- **Code Reusability:** Focused on scalable architecture with reusable components and maintainable code structure.
- **Real-Time Notifications:** Provides instant updates to users for newly listed properties and offers.

**Eminent Analytiqs Website, Modern Educational Platform**  
for Data Technology Mastery [🔗](#)

Nov 2024 – Dec 2024

Developed and deployed a responsive educational website offering courses in Azure Data Engineering, Oracle Mastery, and Hadoop Mastery. Built using **Next.js, Tailwind CSS, Framer Motion**, and JSON to ensure high performance, modern design, and smooth animations. Successfully launched the platform with all features operational in a live production environment.

**SLV Sky Suites Website, Service Apartment Platform with**  
Enhanced SEO and Modern Design [🔗](#)

Nov 2024 – Dec 2024

Designed, developed, and deployed a modern service apartment website offering 1 BHK, 2 BHK, and premium apartment options. Built using **Next.js, Tailwind CSS, and Framer Motion** to deliver a responsive, user-friendly experience with smooth animations. Implemented comprehensive **SEO** strategies to enhance visibility and achieve higher rankings on Google search results.

## EDUCATION

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**Masai School, Full Stack Developer** [🔗](#)

Sep 2021 – Oct 2022

**RCET, B.Tech**

Aug 2018 – Jul 2022 | Bhilai, India

## ACHIEVEMENTS

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- **Leadership & Growth:** Independently started key migration projects and was entrusted to lead critical tasks, collaborating directly with the **CTO** for backend migration and modernization.
- **Team Leadership:** Promoted regularly based on performance; later led a small team, mentoring and guiding new developers to ensure high code quality and effective task management.
- **Process Improvement:** Improved deployment workflows and system responsiveness by integrating **Docker as a service** and real-time updates.

**Performance Optimization:** Enhanced application performance by reducing API response times by 30% and implementing advanced caching strategies

## CERTIFICATES

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- Transition to web3 - 1 [↗](#)
- Transition to web3 - 2 [↗](#)
- Transition to web3- 3 [↗](#)