PRAFULDAS M M

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Professional Summary

AI-Integrated Cross-Platform Systems Engineer Experienced in building production-grade mobile, desktop, and server applications using React Native,React.js, Electron, FastAPI and MSSQL. Strong focus on performance optimization, native runtime engineering, and security-by-design architectures.

Technical Skills

Languages: JavaScript, TypeScript, Python, SQL
Mobile & Desktop: React Native, React.js, Electron.js, React Native Web
Backend: FastAPI, Django
AI & ML: TensorFlow Lite, InsightFace, FAISS (ANN Search),
Database: Microsoft SQL Server, LRU Caching
DevOps & Tools: Docker, Git, Postman, Android Studio, Jaspersoft Studio

Experience

Software Developer   **Jescon Technologies**   *Aug 2024 – Present*
Thrissur, Kerala

- Designed and implemented a secure **Face Recognition Pipeline** using InsightFace embeddings with FAISS-based ANN similarity search supporting **10,000+ face encodings**.
- Developed an on-device **Spoof Detection Engine** using TensorFlow Lite via native C++ and JSI integration, maintaining **60 FPS real-time frame processing** without blocking the JS thread.
- Built reusable mobile components including a configurable **Advanced Search module** adaptable across multiple APIs and business domains.
- Engineered a flexible **Dynamic Reporting System** enabling reusable, customizable report generation with audit-ready logging.
- Contributed to the production **Hospital Credit Insurance System**, implementing:
  - Credit Insurance Management with real-time insurance status tracking
  - Patient Details workflows with validation and structured data handling
  - Report Verification modules ensuring compliance and traceability
- Delivered a live **Inventory Management System** with complete inventory lifecycle workflows (stock entry, consumption, adjustments) and real-time balance updates.
- Built **centralized operational dashboards** providing instant stock visibility and business intelligence for decision-making.
- Implemented secure cross-platform desktop applications using **Electron** with IPC communication, PDF/HTML preview modules, and CORS-safe backend proxy.
- Designed intuitive, operation-focused user interfaces optimized for daily enterprise workflows and field usage.

AppForms Developer (Apprenticeship)   **ClaySys Technologies**   *July 2024 – Aug 2024*
Kochi, Kerala

- Developed data-driven business applications using **AppForms** integrated with **Microsoft SQL Server**.
- Designed and optimized **Stored Procedures** for data retrieval, validation logic, and transactional workflows.

Full Stack Developer Intern   **Techolas Technologies**   *July 2023 – April 2024*
Kochi, Kerala

- Developed RESTful APIs using Django and FastAPI integrated with MS SQL Server for web applications.

- Built responsive front-end interfaces using React.js and managed database operations ensuring seamless synchronization.

Open Source Contributions

react-native-vision-camera-spoof-detector   View Npm Package ↗   *2024 – Present*
- Built a high-performance face anti-spoof detection engine using **TensorFlow Lite + C++ JSI**, enabling real-time inference at **60 FPS**.
- Designed for Vision Camera frame processors with optimized memory handling to prevent JS thread blocking.

react-native-biometric-verifier   View Npm Package ↗   *2024 – Present*
- Developed a modular **biometric authentication framework** combining face recognition, spoof detection, QR scanning, and location verification.
- Wrapped low-level native modules into a reusable enterprise-ready React Native component with animated UI and configurable liveness levels.

react-native-installer   View Npm Package ↗   *2024 – Present*
- Engineered an Android-native module enabling secure **programmatic APK installation** with FileProvider support (Android 7+).
- Implemented TypeScript definitions, cache management, timeout control, and robust permission handling.

Personal Projects

Ecommerce Store   *React.js, Django, MYSQL, JWT*   GitHub ↗
- Developed full-stack e-commerce platform with user authentication (JWT), product catalog, and order tracking.
- Implemented role-based access control (admin/customer) for product management and order processing.

Job Portal   *Django, MYSQL, HTML, CSS*   GitHub ↗
- Created dual-interface platform for job seekers (resume upload, applications) and admins (job postings).
- Developed Django backend with CRUD operations for job listings and applicant tracking.

Education

Master of Computer Applications (MCA)	**IGNOU University**	*July 2024 – July 2026*
Bachelor of Computer Applications (BCA)	**University of Kerala**	*July 2020 – July 2023*

Certifications & Achievements

- NACTET Certified Python Full-Stack Developer
- NSDC Certified Automotive Service Technician Diploma
- Postman API Fundamentals Student Expert
- Infosys Springboard Certified React Native Developer
- Infosys Springboard Certified Jasper Report Developer
- Infosys Springboard Certified MongoDB Developer