POOJAN KANERIYA

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EDUCATION

Master of Science in Computer Science, University at Buffalo, Buffalo, NY (GPA – 3.93/4)   Aug 2024 – Dec 2025
Courses: Algorithm Analysis and Design, Machine Learning, Deep Learning, Data Intensive Computing, Predictive Analytics.

Bachelor of Engineering in Computer Engineering, Gujarat Technological University, India (GPA – 9/10)   Aug 2019 – May 2023

SKILLS

- **Programming Languages:**   Python, Kotlin, Java, Swift, TypeScript, JavaScript, C++.
- **Frameworks & Libraries:**   Node.js, Express, React, Next.js, FastAPI, PyTorch, TensorFlow, Jetpack Compose..
- **Backend & Databases:**   PostgreSQL, MongoDB, Firebase, Redis, RESTful APIs, GraphQL, WebSockets, Microservices.
- **Cloud & DevOps:**   AWS, Google Cloud, Docker, Kubernetes, CI/CD, GitHub Actions.
- **AI/ML & Data Systems:**   Generative AI, Anomaly Detection, Foundation Model Tuning, Agent Design, Model Evaluation.

EXPERIENCE

Software Engineer, *University at Buffalo, NY, USA*   Aug 2025 – Dec 2025
- Drove the end-to-end booking journey across **React Native + Node.js REST** services, defining contracts, pagination, and error semantics to handle reschedule/cancel/refund flows. Lifted booking conversion by 18% and cut time-to-book by 30%.
- Accelerated app starts with lazy loading, memoization, and image caching. Cold start 35% faster, 99% crash-free.
- Architected push + media pipelines (FCM topics/user scopes, **AWS S3** pre-signed uploads with background retries, and CloudFront), enabling photo-based diagnostics, decreased gallery load p95 by 40%, and reduced no-show rates by 15% via reminder notifications.
- Implemented offline-first scheduling and service history using **SQLite** with queued sync, plus JWT refresh and secure storage.
- Coordinated **CI/CD** with GitHub Actions and Fastlane and added smoke tests, reducing regressions and speeding releases.

Software Engineer, *IQ Infinite Technologies, India*   Aug 2023 – July 2024
- Architected scalable Android systems using **Kotlin (MVVM**) and **RESTful APIs**, optimizing performance, improving accessibility, and increasing user engagement by 35% through data-driven UX and telemetry analytics.
- Engineered a secure POS platform handling 1K+ daily transactions with **Node.js**, **PostgreSQL**, and **WebSockets**, enhancing latency, fault tolerance, and transaction reliability by 20% under peak loads.
- Unified iOS/Android data via real-time sync, improving cross-device consistency and cutting platform-specific defects by 20%.
- Directed microservice pipelines and CI/CD automation with **Docker, AWS,** and **Kubernetes**, reducing deployment downtime by 25% and reinforcing system resilience through health checks and rolling updates.
- Enhanced retention by 8% through new **FCM notifications** and extended MVVM features supporting 1K+ daily payments.

Software Engineer Intern, *Archadia Virtual Pvt Ltd, India*   Feb 2023 – July 2023
- Engineered modular Android features with **Kotlin, Jetpack Compose**, and **Android SDK**, setting clean architecture, reusable UI components, and thread-safe state flows. Cut render latency by 18% and improved feature delivery speed by 20%.
- Collaborated with QA and teams in Agile sprints, raising automated unit/integration coverage to 90% and shortening release cycles.
- Integrated **Firebase Cloud Functions**, Firestore, and secure authentication with role-based access, batched writes, and on-device caching. Scaled to thousands of MAUs with sub-200 ms p95 reads and minimal backend load.
- Profiled with Android Profiler and LeakCanary to resolve leaks and GC thrash, reducing UI dropped frames by 25%.

CERTIFICATIONS

- AWS Certified Developer – Associate (**Verify**)

PROJECTS

S2S Connect App | React Native, Node.js, Firebase
- Built a social networking app with **10K+ DAUs** using **React Native** and **Firebase Authentication** for secure cross-platform compatibility.
- Designed a **Node.js** backend deployed on **AWS EC2**, supporting scalable microservices with **Cloud Messaging** for real-time updates.
- Performed load and integration testing to ensure the app handled concurrent users with low latency and high availability.
- Designed a MongoDB schema optimized for read-heavy workloads, improving consistency and supporting atomic operations.

Trello Clone – Project Management App | Java, Firebase, Android SDK, MVC Architecture
- Developed a Trello-like app for task collaboration with real-time sync and cloud file storage via **Firebase** Firestore and Cloud Storage.
- Integrated RecyclerView, ViewPager, and custom dialogs for dynamic drag-and-drop task handling and smooth UI interactions.
- Refined user authentication with **Firebase Auth** for secure multi-user workspaces and real-time data consistency.
- Adopted **MVC** principles, ensuring modularity, scalability, and offline functionality across the Android architecture.

Road Scene Segmentation for Autonomous Driving | PyTorch, OpenCV, NumPy, Matplotlib
- Constructed **U-Net** and **DeepLabV3+** models in **PyTorch** for semantic segmentation of vehicles, pedestrians, and drivable areas.
- Boosted accuracy to **>80% mIoU** using attention layers and hybrid losses for sharper boundaries and small-object detection.
- Refined training with adaptive learning rates and data augmentation to improve model robustness and generalization.
- Evaluated on Cityscapes and KITTI datasets using mIoU and precision metrics for reliable autonomous inference.