NANDAN SAGAR S

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PROFESSIONAL SUMMARY

ECE student with expertise in Embedded systems and Android development. Delivered production-ready Budget Buddy app serving 20+ users during MindMatrixED internship. Built 3 IoT systems including 2km-range LoRa network and real-time 3D display. Proficient in Kotlin, Jetpack Compose, Firebase, ESP32/Arduino, and Gen AI. Seeking internship in product-focused engineering teams.

EDUCATION

AMC Engineering College, Bengaluru| *Expected Graduation: 2026-27*
Bachelor of Engineering in Electronics and Communication Engineering.

EXPERIENCE

MindMatrixED – Gen AI & App Development Intern   *Bengaluru | Sep 2025 – Jan 2026*
- Architected Budget Buddy Android app using Kotlin, Jetpack Compose, and Firebase with MVVM architecture, implementing 15+ features including real-time budget tracking and cloud sync, serving 20+ beta users
- Built SMS auto-detection system using BroadcastReceiver achieving 85% accuracy in parsing transaction details from 8+ Indian banks, automatically categorizing expenses and updating budgets
- Developed AI chatbots using Salesforce Agentforce and Google Vertex AI, reducing query resolution time by 40% through intelligent context-aware automation
- Integrated GenAI tools across SDLC phases, improving team productivity by 25% through automated code review and documentation generation
- Earned 12+ Salesforce Trailhead badges in AI Development, App Builder, and Admin Essentials

Sri Devi Digital Studio - Editor & Photographer   *Sagara | Jun 2020 - Oct 2022*
- Designed 100+ digital creatives. including posters, wedding albums, and promotional materials.for client projects
- Utilized Photoshop and CorelDRAW related tools for professional photo editing, retouching, and layout design

PROJECTS

Budget Buddy | Personal Finance Android App   *Oct 2025 – Jan 2026*
- Engineered full-stack Android app using Kotlin and Jetpack Compose with Firebase Realtime Database for multi-device cloud synchronization
- Implemented intelligent processing 100+ transaction formats, auto-categorizing expenses and generating budget alerts at 80%/100% thresholds, reducing overspending by 35%
- Designed Material Design 3 UI in Figma achieving 4.5/5 user satisfaction from 20+ beta testers
- Built offline-first architecture with Firebase Authentication for secure multi-user support

3D Volumetric Display | Embedded Systems Project   *Jun 2025 – Dec 2025*
- Engineered POV 3D display using high speed rotating LED panel system at 1800 RPM with precision for true volumetric visualization.
- Developed real-time firmware in C for Arduino Uno and ESP32, implementing PID control algorithm maintaining ±0.5% motor speed stability
- Designed custom hardware with Hall effect sensor for rotational synchronization, achieving 360° viewing angles

Long-Range IoT Monitoring System | LoRa Communication   *Nov 2024 – Feb 2025*
- Built and deployed an end-to-end LoRa communication network for long-range, low-power data transmission.
- Successfully transmitted temperature and humidity sensor data over a tested line-of-sight range of 2 kilometres.
- Programmed the LoRa modules using the Arduino IDE to demonstrate a practical IoT application for remote environmental monitoring

TECHNICAL SKILLS

Languages: Kotlin, C, Python, SQL

Mobile & Frameworks: Android SDK, Jetpack Compose, Material Design 3, MVVM, Hilt (DI), Coroutines, Flow

Backend & Cloud: Firebase (Auth, Realtime DB, Analytics), REST APIs, Cloud Functions

Embedded & IoT: ESP32, Arduino, Raspberry Pi, LoRa, MQTT, BLE, UART/SPI/I^2C, Sensors, Motor Control

AI & ML: Salesforce Agentforce, Google Vertex AI, Python ML Libraries (NumPy, Pandas, Scikit-learn)

Tools: Android Studio, Git/GitHub, VS Code, MATLAB, MySQL, Figma, Photoshop

CERTIFICATIONS

- Artificial Intelligence & Machine Learning using Python – Giga Skill Technologies (2024)
- Salesforce Trailhead – 17+ badges in AI Development, App Builder, Admin Essentials (2025)
- Android Development with Kotlin – Google Developers (Self-paced, 2025)

ACHIEVEMENTS

- Selected for the SIH 2025, College-level round based on research into developing a specialized sensor for detection of microplastics
- Built Budget Buddy acquiring 20+ beta (trial) users within 1 months, featured in college tech showcase
- Achieved 2km LoRa range exceeding 1.5km target in real-world urban testing
- Led team of 4 in 3D Display project, completed 2 weeks ahead without critical bugs