

SkillMatch V3 – Smart Job Finder App

APP OVERVIEW:

SkillMatch V3 is an intelligent, AI-powered Android application designed to simplify the job search process through real-time map-based job discovery and AI-driven skill matching. Job seekers can visually explore opportunities near their location, apply instantly, and communicate directly with employers. The platform delivers a simple, mobile-first experience tailored for local, gig, and blue-collar job markets.

MARKET RELEVANCE:

Current job platforms are dominated by corporate, remote, and white-collar roles. Local hiring needs, especially in small towns, semi-urban regions, and blue-collar sectors are underserved.

SkillMatch V3 addresses this by:

- Offering a live map view for hyper-local job discovery
- Providing AI-based skill-to-job compatibility
- Reducing complexity with instant apply and chat features
- Empowering local businesses to reach nearby talent
- Delivering a lightweight, mobile-first hiring system

PROBLEM IT AIMS TO SOLVE:

- Difficulty finding nearby jobs within commuting distance
- Low accuracy due to keyword-only job matching
- Tedious registration and slow user experience in traditional portals
- No real-time communication between employers and candidates
- Lack of reliable systems for local and gig-based recruitment
- Fragmented job listings with no visual location awareness

INTRODUCTION

PROBLEM STATEMENT:

Most existing job platforms rely on keyword searches and static listings without considering proximity, skill compatibility, or instant interaction. This creates delays in hiring, mismatched recommendations, and limited visibility of nearby opportunities especially for local job seekers and small businesses.

PURPOSE:

To build an Android-based platform that connects job seekers and employers using AI skill matching and map-based visual job exploration, enabling fast, relevant, and localized hiring.

SCOPE:

- Android application for job seekers and employers
- Map-based job display using Google Maps / OSM
- AI/ML-based personalized job recommendations
- In-app chat, notifications, and quick apply system
- Firebase backend for secure and scalable data handling
- Offline history access for previously viewed and applied jobs

GPCU FRAMEWORK

G – Gap Analysis:

- No map-based job visualization in existing job apps
- Lack of AI-driven local skill matching
- Platforms focus on corporate hiring rather than regional jobs
- Limited or no real-time chatting with employers
- No offline support for low-network regions
- Gig and blue-collar markets remain underserved
- Paid APIs limit accessibility and long-term scalability

P – Product (SkillMatch V3 – Smart Job Finder App):

- AI Skill Matching: Recommends jobs based on user skillsets
- Map-Based Search: Shows nearby jobs using real-time map pins
- One-Tap Apply: Quick application with pre-filled basic info
- In-App Chat: Real-time messaging between job seekers & employers
- Dual Role Mode: Seamlessly switch between employer and candidate
- Offline Access: Saves job history locally
- Smart Job Alerts: AI-based notifications for matched jobs
- Real-Time Filters: Distance, salary, skills, job type, and category

Technology Stack:

- Frontend: Kotlin (Android Studio)
- Backend: Firebase Authentication + Firestore
- Maps: Google Maps API / OpenStreetMap
- AI Engine: TensorFlow Lite
- Notifications: Firebase Cloud Messaging
- UI Framework: Android Jetpack + Material Design

C – Competition Analysis:

Competitor	Focus	Strengths	Weaknesses
LinkedIn	Corporate jobs	Strong networking	No map-based view; complex UX
Naukri.com	Job portal	Huge job pool	No AI or location-driven discovery
Apna App	Blue-collar hiring	Easy onboarding	No map visualization; spam issues
WorkIndia	Local jobs	Quick search	No AI skill matching
Addvay	Nearby services	Map-based listings	Basic UI; no ML-based filtering

U – Uniqueness:

- AI + Map Fusion: Skill-based matching combined with live location visualization
- Real-Time Chat: Faster communication and hiring
- Offline Job History: Works even with weak connectivity
- Free-Tier Backend: Firebase ensures cost-effective scalability
- Dual Role Functionality: Single app for both seekers and employers
- Smart Notifications: Personalized alerts based on evolving skills
- Simple UI: Optimized for users of all backgrounds

FUTURE POTENTIAL:

- Government job portal integration
- AI-based candidate ranking and recruiter dashboards
- Gig, freelance, and part-time specialization modules
- GPS-based attendance verification for workforce tracking
- Voice-enabled job search
- Full regional language support for rural India

WHY USERS WILL CONTINUE USING SKILLMATCH V3:

- Improving job recommendations powered by AI
- Saves complete application history
- Real-time map displaying active job clusters
- Instant communication leads to faster hiring
- Helps both job seekers and employers daily
- Reduces time spent searching for relevant jobs

DESIGN AND ENGINEERING STANDARDS

User-Centered Design:

- Simple, map-first UI
- Minimal navigation
- Senior-friendly and accessible layout

Software Engineering Practices:

- MVVM architecture
- REST-based Firebase integration
- Modular, scalable code structure

Data Security & Privacy:

- GDPR-compliant data handling
- AES-256 encrypted sensitive data
- Firebase secure token management

Performance:

- Fast map rendering
- Optimized API calls and caching
- Smooth experience across all Android devices

Testing & QA:

- Unit + integration testing
- CI/CD for app reliability

Interoperability:

- Compatible with Maps, Firebase, LinkedIn login, etc.

Ethical AI Standards:

- Transparent recommendations
- No biased filtering
- User control over data

