

PRABHDEEP SINGH

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EDUCATION

Master of Computer Applications , Thapar Institute of Engineering & Technology	2024-Ongoing
Bachelor of Computer Applications , Chitkara Institute of Engineering and Technology	2021-2024 9.00/10.00
12 th (PSEB, Commerce) , Malwa Public Senior Secondary School	2019-2021 80%
10 th (PSEB) Malwa Public Senior Secondary School	2019 85%

EXPERIENCE

AI/ML Engineer Mavriq AI	October 2025- Ongoing Chandigarh
React Native Mobile Application Developer International Tractors Limited Sonalika	Jan 2024- June 2024 Hoshiarpur, Punjab

• Built AI agents to automate client interactions, cutting manual workload by 65% and tripling response speed.

• Created voice-enabled systems with GPT-4 and ElevenLabs, boosting user engagement by 70%.

• Improved context retention in AI workflows, reducing repeats by 60% and raising accuracy by 48%.

• Developed analytics dashboards to monitor agent KPIs, achieving 92% customer satisfaction.

• Developed and deployed S-ONE, a React Native app automating approval workflows for 120+ employees across 6 departments, digitizing 95% of manual paperwork.

• Integrated AWS S3 for secure, version-controlled storage handling 5K+ documents/month with 99.9% uptime.

• Implemented Firebase Cloud Messaging for real-time alerts, cutting approval time from 5 days to 2 days and boosting engagement by 70%.

• Optimized app performance with React Hooks and Redux, improving load speed by 35% and reducing crashes by 25%.

• Collaborated on REST API integrations and Git-based CI workflows, enhancing data sync by 40% and delivery speed by 30%.

PROJECTS

- Project: "**Safe Steps**" Safety-First Mobile GPS Navigation App, Built a React Native + Node.js mobile app focusing on safe pedestrian navigation. Designed a custom routing algorithm using crime statistics and user-reported incidents to suggest safe paths. Visualized routes with Mapbox, highlighting safe (green) and risky (red) zones. Helped reduce user exposure to unsafe areas, enhancing urban navigation safety.
- Project **TESS**: Autonomous AI Desktop Automation Engine, Built an AI-powered assistant using LLM-based natural language understanding and OpenCV for GUI automation. Automated complex multi-step workflows, increasing efficiency by 300%. Enabled seamless desktop automation for repetitive tasks, reducing manual intervention.
- Project: "**Recipe Wizard**" Intelligent Recipe Generation Application, Built a full-stack Flask + React web app to generate recipes from user-provided ingredients, reducing food waste and simplifying meal planning. Developed a smart matching algorithm with substitution suggestions for missing ingredients, querying a 100,000+ recipe database via RESTful APIs. Delivered a practical tool that instantly inspires meals and optimizes available ingredients, showcasing

SKILLS

- Programming Languages: C++, Java, Python, JavaScript
- Frameworks & Libraries: React Native, ReactJS, Flask, Node.js
- Core Competencies: Data Structures & Algorithms, Scrum, Debugging & Performance Optimization
- Tools & Platforms: Git & GitHub, AWS (S3, EC2), Firebase, WHM/cPanel, Docker, Postman, ElevenLabs

EXTRA-CURRICULAR ACTIVITIES

PATENTS

- EARPHONE WITH AUTO ON AND OFF PROVISION THROUGH MONITORING BRAIN SIGNALS (Utility) **Application Number- 202211056467**
- DEVICE AND METHOD FOR DETECTING THE INFECTION STATE OF HAIR (Utility) **Application number- 202211071205**
- WEARABLE DEVICE AND METHOD FOR GENERATING SOUND OF ANKLET BELL (Utility) **Application number - 202311034419**
- COLOR BLIND AND MULTIUSABLE ELECTRIC TOOTHBRUSH (Utility) **Application number- 202511078357**