

PRABHDEEP SINGH

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OBJECTIVE

To design and develop efficient, scalable, and reliable software solutions that drive innovation and business growth.

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

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

EXPERIENCE

React Native Mobile Application Developer International Tractors Limited Sonalika	Jan 2024- June 2024 Hoshiarpur, Punjab
<ul style="list-style-type: none">• Developed “S-ONE” cross-platform app to digitize document approval workflows.• Implemented AWS S3 storage + Firebase push notifications, reducing approval cycle time by 60%.	

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

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**
(<https://iprsearch.ipindia.gov.in/PublicSearch/PublicationSearch/ApplicationStatus>) application number.]