

# S M PRADEEP SINGH

pradeepsinghtmk1999@gmail.com | [LinkedIn](#) | [GitHub](#)

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## Education

### B.E in Computer Science and Engineering

Aug 2019 - Aug 2023

Bachelor of Technology, Computer Science and Engineering

GPA: 8.32/10.0

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## Work Experience

### Navneet TopTech Frontend Developer

Feb 2025 - Present

- Designed and developed an interactive, responsive interface for the TopSchool Library, including a dual-tab system (Resources and Details) and a global player supporting multiple formats (PDF, MP3, MP4, HTML, images, ELA) with a dynamic queue, contributing 60% to the project's enhanced user experience and accessibility.
- Implemented a hierarchical navigation system with Chapter, Topic, and Lesson Plan rows, featuring scroll-free layouts, intuitive arrow-based scrolling, and synchronized player updates, adhering to Figma design specifications for consistency and usability, accounting for 40% of the project's functionality and polish.

### Deloitte Consulting USI Private Ltd AI/ ML Engineer

Feb 2024 - Oct 2024

- **Care Assistant for Personalized Healthcare Recommendations**
  - Developed an AI-powered tool for personalized healthcare recommendations and visit scheduling, improving patient engagement by 20%.
  - Integrated Streamlit front-end with Faiss vector search for precise, patient-specific recommendations.
- **Q&A Assistant for Personalized Health Plan**
  - Implemented a Q&A Assistant tool using a Retrieval-Augmented Generation (RAG) model and vector database to guide patients toward suitable health plans, resulting in a 15% increase in plan enrollment.
  - Provided accurate and responsive answers to patient queries regarding plan options and benefits.
  - Enhanced relevance and personalization of recommendations through optimized vector search and retrieval methods.
- **Product Recommendation System**
  - Developed a personalized product recommendation system for Ecolab, using RAG model and cosine similarity to boost conversions.
  - Deployed on Google Cloud Platform and Vertex AI with Docker and PostgreSQL for scalability and efficient data handling.
- **Language Translation System**
  - Built a Language Translation System with Google Cloud Translation API, enabling real-time multilingual support and document translation, reducing response times by 25%.
  - Employed RAG model and Generative AI for context-aware translations, with PDF and DOCX download options.
- **Sentiment Analysis**
  - Created a sentiment analysis tool using Google Cloud Natural Language API to automate social media monitoring and survey response analysis, yielding 20% more actionable insights.
  - Enhanced insight generation by refining sentiment analysis for efficient feedback interpretation.
- **Image Classification**
  - Developed an image classification system with Google Cloud Vision API to categorize images as food or beverage, improving content relevance on a food-related platform.

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## Projects

### Real Time Oral Cavity Detection Leading to Oral Cancer using CNN

- An Android app-based solution using Flutter, Django REST, Python and MongoDB for oral cancer detection in early stage by image processing technology.
- The solution in backend uses combination various CNN models like ResNet152, ResNet101, GoogLeNet

### SMS Spam detection using Machine Learning

- Developed a machine learning model to detect SMS spam, enhancing message filtering accuracy.
- Improved spam detection by refining the model for better performance in identifying unwanted messages.

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## Skills

**Programming Languages:** C, C++, Python

**Web:** HTML, CSS, JavaScript, ReactJS

**Database tools:** MongoDB, PostgreSQL

**Other:** Retrieval-Augmented Generation (RAG), Generative AI, Large Language Models (LLMs) and OpenAI, Google Cloud Platform