# **Ketan Darekar**

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## **SUMMARY**

Master's student in Applied Computer Science with hands-on experience in full-stack web development using React.js and Node.js. Skilled in JavaScript, REST APIs, Agile workflows, and Git. Proficient with CI/CD and cloud platforms. Eager to contribute to scalable, user-focused solutions in a dynamic, agile team environment.

#### **SKILLS**

- Technical Skills: HTML, CSS, JavaScript, Java, Python, React.js, MongoDB, Git, GitHub, REST APIs.
- Technical Competencies: Software Development, LLM, Docker, CI/CD, API Integration, Agile.
- Soft Skills: Teamwork, Communication, Problem-Solving, Analytical Thinking, Time Management.
- Language Skills: English (C1), German (B2), Hindi (Native), Marathi (Native).

#### **PROJECTS**

### Al Powered Chatbot & Assistance Platform

source code

- Built an AI-powered chatbot with real-time chat, image handling, and secure login. Used React.js for the UI, Node.js, Express.js for the backend, Gemini API for AI responses, and MongoDB Atlas to store chat history.
  - Integrated live data via OpenWeather and News APIs, enhanced by Gemini's context-aware responses.

## **Ecommerce Web Application with Stripe and firebase**

source code

- · Developed a full-stack e-commerce application with features like product browsing, real-time cart updates, and secure checkout. Designed the frontend using React.js, Tailwind CSS and built the backend with Node.js, Express.js.
- Integrated Stripe for payments, Firebase for authentication and real-time data, and MongoDB for product storage.

## **Hotel Management System**

source code

- Built a desktop-based Hotel Management System with room booking, automated billing, and customer record tracking. Developed the UI using Java Swing and AWT for a smooth user experience.
- Connected to MySQL via JDBC for reservations, billing, CRUD, and invoice generation with data validation.

## WORK EXPERIENCE

# AI Research Thesis - Retrieval-Augmented QA System for PDF & Web Content

source code

- SRH Hochschule Heidelberg · Apr 2025 Sept 2025 (ongoing)
  - Currently developing an Al-powered question-answering system using Retrieval-Augmented Generation (RAG) to extract structured information from PDF and web content, leveraging PostgreSQL and LangChain.
  - Implementing scalable backend logic with Python and FastAPI, focus areas include chunking strategies, metadata handling, and NLP integration for large-scale retrieval efficiency.

## **EDUCATION**

**Master of Science in Applied Computer Science** 

Oct 2023 - Sep 2025

SRH Hochschule, Heidelberg | Grade: 2.1 (1.0 = best)

**Bachelor of Computer Application** Aug 2019 - April 2022

MIT ACSC, Pune | Grade: 9.1 / 10 CGPA

## **CERTIFICATIONS**

Certificate **Certificate** 

Certificate

Certificate

• Full Stack Software Developer - IBM, 2025

• Python Full Stack - CJC, 2023

German B1 & B2 - Goethe Institute, 2023

Azure fundamentals – Microsoft, 2022