Prathamesh Kothalkar

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EDUCATION

SPPU
B.E in Information Technology
JUN 2027 | Pune, India
Zeal College of Engineering & Research, Pune
CGPA: 8.46/10

MSBTE
Diploma in Computer Science
JUN 2024 | Jalgaon, India
Government Polytechnic Jalgaon
Percentage: 87.14%

LINKS

Github: **Prathamesh-Kothalkar**
LinkedIn: **prathamesh-kothalkar**
Leetcode: **prathamesh_kothalkar**
HackerRank: **prathameshkotha4**
GeeksForGeeks: **pkothalkar0688**

COURSEWORK

UNDERGRADUATE
Machine Learning
Computer Networks
Operating Systems
Artificial Intelligence + Practicum
Database Management System
Object-Oriented Programming (OOP's)

SKILLS

PROGRAMMING
Over 5000 lines:
Java • Python • Javascript
Typescript •
Over 1000 lines:
C • C++ • CSS
Familiar:
SQL • Bash • Assembly

FRAMEWORKS & TOOLS
Framework
React.js • Node.js • Express.js • Next.js •
Prisma ORM,• Tailwind CSS Tools
Linux• Git• GitHub • Docker • Redis•
Android, • Postman

DATABASES
SQL
MySQL • PostgreSQL • Oracle DB
NoSQL
MongoDB

EXPERIENCE

AREVEI | Software Engineering Intern
Aug 2024 – May 2025 | Delhi, India

- Developed an admin dashboard to manage products, orders, and user data, improving operational workflow efficiency by 45%.
- Implemented secure user authentication and role-based access control using JWT and middleware, enhancing system security by 50%.
- Optimized search functionality using MongoDB indexing, aggregation pipelines, and debounced API calls, reducing the average query response time from 3.5 to 2.0 s.
- Integrated advanced product filtering and full text search with unreported API calls, decreasing search time by 50%.

PERSONAL PROJECTS

COLLEGE RECOMMENDATION SYSTEM WITH GENAI GitHub | Live
Next.js | TypeScript | Prisma ORM | PostgreSQL | Tailwind CSS | Google Gemini(Gen AI)

- Built a GenAI-powered college recommendation system using **Next.js (TypeScript)** and **PostgreSQL**, delivering personalized college matches based on scores, category, and preferences.
- Designed and integrated a GenAI-based ranking model that improved recommendation accuracy by 40%,reduced user search effort by 50and boosted satisfaction scores by 35%.
- Engineered backend APIs with **Next.js API Routes**, **Prisma ORM**, and **PostgreSQL**, enabling scalable filtering, querying, and data persistence.
- Implemented Redis caching for college summary data, reducing API response time by 40% and external API calls by 70%, resulting in faster user experience and lower server costs.

COLLABORATIVE REAL-TIME WHITEBOARD | GitHub
React.js | Express.js | Socket.io | Fabric.js | Keycloak

- Built a scalable, real-time multi-user whiteboard enabling simultaneous drawing and annotation for up to 30 users.
- Engineered **WebSocket communication** with **socket.IOO** to support live cursor tracking, session management, and canvas synchronizationbetweenen distributed clients.
- Integrated advanced drawing tools such as **undo/redo**, **eraser**, **custom brushes**, **text annotations**, and **image export**, improving interactivity and creative flexibility.
- Boosted team participation during collaborative design reviews by 60% through live cursor tracking and instant feedback mechanisms.

PUBLICATIONS & AWARDS

- **Hackathon Winner**: 1st place – Developed a Course Enrollment System in a college hackathon (10+ teams).
- **Technical Author**:Published "Optimize Search Queries in Your Next.js and Node App" on Medium.
- **Competitive Programming**: Solved 350+ DSA problems across LeetCode, GFG, and HackerRank (5-star Java).