# Prathamesh Chikkali

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## SUMMARY

Detail-oriented B.Tech Computer Science student with a strong foundation in Full-Stack Development and AI/ML. Proficient in building scalable web applications using React.js, Node.js, and Python. Proven problem-solver with a Level 4 rating on CodeChef and a 1st Place win in the Samarthana Hackathon. Passionate about software architecture, database optimization, and delivering user-centric digital solutions.

## TECHNICAL SKILLS

**Languages:** Java (5-Star HackerRank), Python (Certified), JavaScript (ES6+), C, SQL
**Frontend:** React.js, HTML5, CSS3, JavaScript, Figma (UI/UX)
**Backend & Databases:** Node.js, Express.js, RESTful APIs, MySQL, PostgreSQL
**Libraries/Frameworks:** NumPy, Pandas, Scikit-Learn, TensorFlow, Matplotlib
**Tools & Platforms:** Git, GitHub, VS Code, Postman, Arduino (IoT)
**Core CS:** Data Structures & Algorithms (NPTEL Certified), Operating Systems, DBMS

## EXPERIENCE / PROJECTS

**SignSync: Real-Time Sign Language Interpreter & Communication Hub**
*Tech Stack: React.js, FastAPI, MediaPipe, OpenCV, WebRTC, PostgreSQL*

- Engineered a full-stack assistive system that translates Indian Sign Language (ISL) gestures into text/speech in real-time with 90%+ accuracy.
- Optimized a MediaPipe + LSTM pipeline for low-latency inference, reducing frame processing time by 40% using asynchronous worker threads.
- Integrated WebRTC-based video calling enabling seamless communication between deaf-mute users and non-signers.

**Nexus: Microservices-based Task Orchestrator**
*Tech Stack: Java, Spring Boot, Redis, Kafka, Docker, MySQL*

- Architected a distributed task scheduling system handling 10,000+ concurrent requests using microservices architecture.
- Implemented Redis caching to reduce database read latency by 60% and Kafka for asynchronous processing.
- Containerized the ecosystem using Docker, enabling cloud-ready scalability.

**InsightStream: AI-Driven News Aggregator & Bias Profiler**
*Tech Stack: MERN Stack, Python (NLP), AWS*

- Built a custom NLP engine using BERT to analyze 500+ daily news articles for political bias and sentiment polarity.
- Developed a responsive React dashboard with Redux featuring real-time bias trend visualizations.
- Engineered a web-scraping pipeline using BeautifulSoup/Scrapy with optimized MongoDB indexing.

## ACHIEVEMENTS

- CodeChef Level 4 (Highest Rating: 1676), 5-Star in Java and Python on HackerRank.
- NPTEL Data Structures and Algorithms in Python (Nov 2024).
- 1st Place – Samarthana Hackathon..

## EDUCATION

**Shri Ramdeobaba College of Engineering and Management, Nagpur**
B.Tech. in Computer Science (AI & ML)                                                    CGPA: 8.65
2023 – 2027 (Expected)

**Sanjay Ghodawat International College, Kolhapur**
Higher Secondary Education (12th Board)                                                          76%
2023

## CERTIFICATIONS

- Full-Stack Development Certification – EduSkills (Jun 2024)
- Data Structures and Algorithms in Python – NPTEL (Nov 2024)
- Prompt Engineering & AI Innovation