

# Pratik Pingale

FULL-STACK DEVELOPER · CLOUD-FOCUSED ENGINEER

Pune, India

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"I believe I can and I'm halfway there."

## Summary

Full-Stack and cloud-focused software engineer with experience designing and deploying secure, scalable services on Kubernetes and Azure. Skilled in CI/CD, monitoring with a strong track record of improving reliability, ensuring compliance, and delivering enterprise-grade solutions in agile environments through secure architecture and efficient cloud practices.

## Skills

**Programming** Languages: C#, C/C++, TypeScript, Python, Kotlin. **Frameworks:** ASP.NET Core, gRPC, Angular, Django  
**Cloud, DevOps & Databases** Microsoft Azure, Google Cloud, AWS, Kubernetes, Helm, CI/CD, PostgreSQL, RabbitMQ, NATS, Redis  
**Practices & Tools** Git, Linux, Unit & Integration Testing, Threat Modeling, SDLA Compliance, SAFe Agile

## Professional Experience

### Emerson

Pune, India

SOFTWARE ENGINEER

Feb 2023 - Current

- Contributed to the MVP release of cloud migration replacing a legacy on-prem tool, supporting roadmap targets of 1,000+ global sites and a major revenue stream, by driving feature implementation and cross-team coordination.
- Re-architected data workflows into **gRPC** microservices with On-Prem data caching and async workers, cutting data fetching latency by **~93% (5000ms to 350ms)** and reducing database read-load by **~60%**, improving end user reliability.
- Optimized Kubernetes deployments through resource tuning, Horizontal Pod Autoscaling (HPA), and Prometheus monitoring, lowering CPU usage per pod by **48%**, increasing throughput by **2.5x (up to 500 requests/sec)**, and reducing cloud infra spend by **~32%**.
- Improved system reliability by raising unit and integration test coverage from **38% to 54%** and enforcing CI/CD automated smoke tests, resulting in a **62%** reduction in monthly SEV incidents (**13 to 5**).
- Strengthened secure-design & delivery practices by authoring threat models, SDLA-compliant design docs and security checklists that ensured **zero critical security findings** across multiple releases, enabling predictable PI delivery without sprint spillovers.
- Led the internal rollout of AI-assisted development tools (GitHub Copilot) across the engineering team, accelerating feature delivery by reducing average code-review cycle time by **~25% (48h to 36h)** and increasing merged-PR throughput by **~30%**.

### Convin.ai

Pune, India

BACKEND ENGINEER AND ANDROID DEVELOPER

Sept 2021 - Apr 2022

- Redesigned ingestion pipelines using Django REST, asynchronous workers, and PostgreSQL indexing, increasing throughput to **~1,500 calls/day** and reducing end-to-end latency by **~40%**.
- Automated language detection for **98%** of calls by integrating Amazon Transcribe with custom NLP heuristics, improving transcript quality to **~85%** and reducing manual corrections by **~60%**.
- Developed a production-ready enterprise Android application (Kotlin) featuring secure call recording and resumable background synchronization.
- Achieved successful recording uploads within 5 minutes for **~90%** of sessions, reducing manual audio transfer requirements by **~75%**.
- Collaborated with a 13-person team on CI/CD pipelines, client onboarding and feature prioritization, delivering a centralized call-review integration for a 30-person management team. (Letter of Recommendation) ↗.

## Organizational Experience

### AISSMS COE

Pune, India

CORE TEAM MEMBER MICROSOFT STUDENT CLUB

July 2021 - Sept 2022

- Built a university Timetable Scheduler ↗ model with a colleague, which uses a genetic algorithm and is portable for various scheduling scenarios, such as school timetables or employee timesheets.
- Designed the scheduler to be flexible for any case, with lower time complexity compared to existing models that were only useful in specific scenarios.
- Developed a Certificate App ↗ for easier certificate generation and distribution, which helped the college's Sports Department manage certificates for competitions and events.
- Technical Skills:** Python with genetic algorithms, Django, HTML5, CSS3, JavaScript, CI & CD, Git.
- Soft Skills:** Teamwork, time management, communication, logical thinking.

### AISSMS COE

Pune, India

CORE TEAM MEMBER GOOGLE DEVELOPER STUDENT CLUB

Sept 2020 - Sept 2022

- Led the Competitive Programming Team and organized multiple virtual and in-person events for freshmen and juniors.
- Conducted events focused on Git, Data Structures, Algorithms, and Competitive Programming, helping participants understand fundamental concepts and improve their coding skills.
- Contributed as a member of the Web Development Team to the DSC AISSMSCOE ↗ official website.
- **Technical Skills:** Python (Algorithms, Data Structures), Tailwind CSS, Firebase, Git.
- **Soft Skills:** Leadership, Time Management, Communication, Logical Thinking.

## Projects

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### DarkSpider ↗

AISSMS COE

Pune, India

Aug 2022 - Feb 2023

- White paper: Anatomy of the Dark Web's Network Structure to Detect Illicit websites ↗
- Engineered a multithreaded crawler to map dark-net site structures as a directed graph, utilizing PageRank algorithms to identify high-value nodes.
- Developed incremental crawling with content-based ranking and change detection mechanisms with URL expiration handling to maintain dataset freshness and eliminate redundant fetches.
- Implemented rate limiting and sandboxed execution environments to ensure ethical research practices and minimize operational impact during data collection.

### Timetable Scheduler ↗

Pune, India

AISSMS COE

Sept 2021 - Jan 2022

- Developed an intelligent timetable generator for university scheduling using a Genetic Algorithm, automating the creation of conflict-free timetables.
- Designed and implemented logic to satisfy both hard constraints (such as no overlapping classes and room availability) and soft constraints (such as preferred time slots and faculty preferences) to optimize scheduling efficiency.
- Built the system using Python and Django, leveraging Genetic Algorithms for iterative improvement and solution convergence.
- Enhanced teamwork and project delivery through effective time management, collaborative problem-solving, and clear presentations of technical concepts.

### Museum Gallery ↗

Pune, India

PERSONAL PROJECT

May 2020 - Aug 2020

- Created a virtual reality museum application enabling users to explore museum galleries remotely, enhancing accessibility and user engagement.
- Developed the application for Android using Java and integrated Google VR SDK to deliver immersive 3D experiences.

### Twitter Sentiment Analysis ↗

Pune, India

PERSONAL PROJECT

Apr 2022 - May 2022

- Implemented sentiment analysis on Twitter data using vaderSentiment, CountVectorizer, and KMeans clustering to classify and visualize public opinion trends.
- Processed and cleaned tweet texts by removing stop words, tokenizing, stemming, and lemmatizing to improve model accuracy and reliability.
- Utilized Python libraries including Pandas, NumPy, seaborn, and scikit-learn for data manipulation, analysis, and visualization.

## Education

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### AISSMS College of Engineering

Pune, India

BACHELOR OF TECHNOLOGY IN COMPUTER ENGINEERING

Aug 2019 - Current

- Graduated with Honours in *Data Science and Machine Learning*. 9.38 CGPA
- **Relevant Coursework:** AI, ML, Deep Learning, NLP, Blockchain, Security, DBMS, Data Structures, Computer Graphics, Discrete Math, Big Data Analytics, Data Visualization, Statistics

## Achievements

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2025	<b>Certificate</b>	Microsoft Certified: Azure Fundamentals (AZ-900) ↗	Pune, India
2025	<b>Certificate</b>	Recognition for Outstanding Contribution	Pune, India
2024	<b>Certificate</b>	Recognition for Outstanding Contribution	Pune, India
2024	<b>Winner</b>	Emerson 2024: Capture The Flag (Hack The Box)	Pune, India
2020	<b>Winner</b>	Internal Hackathon for Smart India Hackathon (SIH)	India
2015	<b>Winner</b>	District level Karate Competition	Pune, India

## Interests

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**Linux** Since 2020, I have loved using Linux. Linux ricing ↗ is my hobby.

**Karate** I started karate at age 15 and have participated in several state and national-level competitions.

**Music** I enjoy almost all types of music, but my favorite genres are aesthetic EDM and electro.