Pratik Pakhale

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EDUCATION

• Indian Institute of Information Technology, Dharwad

2021-2025

7th Semester (8.18 CGPA), Bachelor of Technology in Computer Science and Engineering

EXPERIENCE

Contributor

• Google Summer of Code | PEcAn Project ☑

2024 Remote

- Integrated JSON data schema (management-event-schema) into PEcAn's FieldActivity R Shiny application, enabling it to read variable information from the schema and store management activity data in a compliant and flexible manner.
- I built an **individual JSON Schema parser** and then integrated it in the main app. Also worked on storing multiple incidents for specific management cases, enhancing the data structure to support complex scenarios.

• IIT Bombay | Affect Aware System and QGIS LMS Platform

2023

Research Intern and Developer

IIT Bombay

- Developed an advanced learning system utilizing video bots for enhanced student engagement.
- Implemented an adaptive feedback platform using React & ExpressJS, a Flask server running the deep learning model, and improved learning outcomes. This software that can be run locally using **Docker** or through an **Electron installation** for portability.
- Working on GeoGuru, a Learning Management System that incorporates a geographical information system. Working as the lead backend developer and handling devops to build a scalable APIs.

• VIKRAM - Arthlex Research Private Limited 🗹

2023

 $AI\ Architect$

Remote

- Directed the building process of vikrambots.ai, a platform that allows the creation and sharing of bots powered by LLMs.
- Managed AWS EC2 hosting and DevOps, integrated NextJS with Typescript, Flask with Langchain, and Weviate Vector Database.

• Additional Experience

Other notable experiences

- Co-founder and CEO of DevForces. Making competitive development more fun and rewarding.

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- Research Intern IKS Text Analytics. Data mining algorithm using PFP growth
- Project Lead **Institue Website IIIT Dharwad**. Led a team of 15 developers and designers using the Agile framework to build the new college website.

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PERSONAL PROJECTS

• vChar O ✓

The AI researcher which researches across web to find the solution you are looking for

- Developed the **RAG** application completely local and with in-house tools for agents to use.
- Used llama3 and mixedbread embeddings for RAG, built a low-latency browser API for faster web querying and more.

• Rewind 🗘 🗹

A social media platform powered with generative AI technologies solely built for music lovers.

- Primarily developed an AI-driven social media platform catered to music enthusiasts using TypeScript Node, React, and Python.
- Led the design and implementation of a voice bot for enhanced website interaction, including post-creation and advanced search functionalities.

• Event Management 🗘 🗹

The complete event management website for club events from registering to ticketing.

- Solely created a one-stop online platform for managing club events, including registration and ticketing, using MERN stack, TailwindCSS, and Netlify Lambda.
- Successfully maintained flawless operation handling over 100k API calls.

TECHNICAL SKILLS AND INTERESTS

Languages: TypeScript, JavaScript, Python, R, Java, C,

C++, SQL, HTML, CSS, Shell Scripting.

Tools: Docker, GitHub Actions, AWS

Frameworks: Nextjs, ReactJs, NextJs, NodeJs, Flask

Databases: Vector, SQL, No-SQL

ACHIEVEMENTS

- Global Hackathon Winner Postman Go with the Flow Hackathon
- Shark Tank IIIT Dharwad Winner Pitched DevForces

Positions of Responsibility

- President: Velocity Development Club Managed the teams, campus projects, and events.
- Postman Student Leader: Promoted API Literacy on my campus and hosted fun events like API Treasure Hunt
- Buildspace Campus Rep: The campus representative for Buildspace's Nights and Weekends