

Pratul Muthuraja

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SUMMARY

Full-stack developer with expertise in React, Node.js, Python, Docker, and Kubernetes to automate infrastructure and create scalable, high-performance web apps and a proven track record of producing clean, maintainable solutions across tech stacks, emphasizing reliability and observability. Looking for Full-stack Developer and Software Engineer positions.

EDUCATION

- Illinois Insitute of Technology** Chicago, USA
Master of Computer Science January 2021 - May 2023
- Anna University** Chennai, India
Bachelor of Engineering in Computer Science June 2014 - May 2018

SKILLS

| | |
|-------------|---|
| Languages | Python, Go, JavaScript, SQL, Bash, HTML/CSS, Markdown |
| Frameworks | Django, Flask, ReactJS, NodeJS, LAMP |
| Tools | Kubernetes, Docker, GIT, PostgreSQL, MySQL, SQLite, NGINX, Helm, Gatsby, Hugo, Jenkins, ChatGPT, Grafana, Loki, Ceph, Prometheus, Ansible |
| Platforms | Linux, Web, Mac, AWS, GCP |
| Soft Skills | Leadership, Event Management, Writing, Public Speaking, Time Management |

EXPERIENCE

- Armour Chapter of Triangle** Chicago, USA
Full-Stack Developer November 2023 - November 2024

Organization Website

- Tech Stack:** React.js, Nodejs, Javascript, TailwindCSS, PostgreSQL.
- Built a full-stack web application to securely manage social and event data for over 200K members.
- Overhauled backend architecture, optimizing database queries and caching strategies to bring API response times under 100ms and reducing latency by 80% while cutting operational costs by 60%.
- Designed and implemented event-driven batch jobs for real-time notifications and automated task scheduling, improving engagement and workflow efficiency by 25%.
- Led UI/UX development, working closely with stakeholders to create Figma wireframes and translating them into a highly responsive React frontend improving load speeds by up to 40%.
- Improved system reliability to 99.99% uptime by setting up load balancing, auto-scaling, failover mechanisms, and database replication, minimizing downtime and ensuring high availability.

Private Cloud Infrastructure for Scalable EdTech Delivery

- Tech Stack:** Proxmox VE, Ceph, Kubernetes (k3s), Terraform, Ansible, ArgoCD, Helm, Prometheus, Grafana, Loki, Alertmanager, OpenTelemetry, Vault, WireGuard, Cosign, Trivy
- Set up a 3-node Proxmox VE cluster with Ceph storage to run a containerized EdTech platform supporting video lessons and interactive training modules supporting 2K+ concurrent users streaming over 8TB monthly.
- Built a CI/CD pipeline using Terraform, Ansible, ArgoCD, Helm, and k3s to streamline deployments of new course content and platform features reducing deployment time by 70%.
- Rolled out a full observability stack with Prometheus, Grafana, Loki, and OpenTelemetry to keep tabs on system health for over 200 services and handle high traffic during academic peaks.
- Locked down access for instructors and developers with Vault for secrets management and WireGuard for secure, remote connectivity decreasing incidents by 100%.
- Brought hosting costs down by 60% while maintaining 99.99% uptime, freeing up budget for content and engagement initiatives.

Internal Student Grievance & Feedback Portal

- Tech Stack:** React.js, Node.js, PostgreSQL, TailwindCSS, Framer Motion, Jest.
- Led end-to-end development of a secure feedback and grievance portal for university students, enabling real-time issue tracking and reducing resolution time by 40% through streamlined departmental workflows.
- Designed and deployed a role-based web platform using React.js, Node.js, and PostgreSQL, with full support for anonymity, notifications, and searchable case history for admins and faculty improving response rate by 35% and consequently increase engagement by 25%.

- Illinois Institute of Technology** Chicago, USA
Graduate Student Ambassador August 2021 - December 2022

- Managed databases and generated reports on Salesforce; Analyzed prospective student data to improve response to Graduate Discover Day event resulting in 19% growth of incoming graduate students compared to 2020.
- Strong leadership and collaboration skills evidenced by organizing recruitment activities through campus tours, student panel, and events for the Graduate Admissions Office showing 37% better response rate.

- Narayana Glass Company** Madurai, India
Business Development Manager June 2018 - December 2020

- Upgraded heavy machinery resulting in increased productivity by 25% and implemented better safety standards.
- Achieved national market penetration resulting in 15% sales increase and 10% market value increase.