Nikhil Rai

Seasoned Senior Software & DevOps Engineer

A versatile professional skilled in architecting robust, scalable web applications and driving innovation through microservices architecture, AI integration, and advanced DevOps practices. Proficient in implementing CI/CD pipelines, managing cloud infrastructure with IaC tools, and orchestrating containerized environments to enhance security, streamline operations, and achieve business objectives. Proven leadership in collaborative problem-solving, mentoring teams, and delivering high-impact solutions across media, cybersecurity, aerospace, and telecommunications sectors. Dedicated to continuous improvement and knowledge sharing to elevate team performance and application integrity.

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EDUCATION

Bachelor of Technology in Information Technology
Veer Bahadur Singh Purvanchal University, Jaunpur, U.P, India | June 2021
Percentage: 70%

SKILLS

- **Languages**: Python, JavaScript
- **Frameworks**: Django, Django REST Framework, Vue.js, Wagtail, React
- **Frontend**: HTML, CSS, Bootstrap, Vuetify
- **Databases**: MySQL, SQLite, PostgreSQL, MongoDB
- **Microservices & DevOps**: Microservices Architecture, Docker, Kubernetes, Kafka, RabbitMQ (Message Broker), Grafana, Prometheus, SonarQube, Terraform (IaC), Jenkins, Sentry, BetterStack
- **Tools & Technologies**: GitHub, Web Scraping, Celery, REST API, Redis, Nginx, Gunicorn, JWT, Razorpay, Postman, Python unittest
- **Cloud Platforms**: Azure, AWS, Digital Ocean
- **Operating Systems**: Linux

EXPERIENCE

Software Engineer / AI and Cloud Engineer
SkyAI Technologies | IIT KANPUR | Oct 2024 – Present

- Led development and cloud management for two AI-driven and microservices-based products, delivering scalable solutions for the media sector.

- Architected and managed microservices deployments on DigitalOcean, utilizing Docker, Kubernetes, and Terraform for infrastructure automation.
- Implemented CI/CD pipelines with Jenkins and SonarQube to ensure high code quality and streamlined deployments.
- Integrated Razorpay for secure payment gateways, enhancing user experience in commercial applications.

Key Products:

- **VTV Gujarati News Channel** **link**
  Developed a dynamic news platform using Django and Wagtail, leveraging microservices architecture for scalability.
  Tech Stack: Django, Wagtail, Docker, Kubernetes, DigitalOcean, Jenkins, SonarQube, Sentry, Betterstack
  Responsibilities:
  - Designed and managed microservices for content management and delivery, deployed on DigitalOcean.
  - Configured CI/CD pipelines with Jenkins and ensured code quality with SonarQube.
  - Optimized infrastructure for high-traffic news delivery using Kubernetes for container orchestration.
- **AI Varta** **link**
  Engineered an AI-powered chatbot solution to enhance customer experience on websites, becoming SkyAI Technologies' flagship product.
  Tech Stack: Django, Docker, Jenkins, SonarQube, Razorpay, DigitalOcean, PostgresSql
  Responsibilities:
  - Developed backend with Django, integrating AI-driven chatbot functionalities for seamless user interaction.
  - Implemented CI/CD pipelines using Jenkins and Docker, with SonarQube for code quality assurance.
  - Integrated Razorpay for secure payment processing, enabling subscription-based access.
  - Deployed and managed the application on DigitalOcean, ensuring scalability and performance.

Software Engineer
Cyber3ra | IIT KANPUR | Nov 2022 – Sep 2024

- Led development of three high-impact products, including a cybersecurity platform, a creative talent marketplace, and an aerospace application, leveraging microservices and advanced DevOps practices.
- Architected microservices-based systems, deployed on Azure, AWS, and DigitalOcean, using Docker, Kubernetes, and Terraform for scalability and automation.

- Designed event-driven architectures with Kafka and RabbitMQ for reliable asynchronous communication.
- Implemented CI/CD pipelines with Jenkins and SonarQube, and configured Sentry and BetterStack for real-time monitoring and logging.
- Mentored cross-functional teams on DevOps best practices, cloud management, and secure application development.

Key Products:

- **SecuriumX** **link**
  Developed a pioneering cybersecurity platform connecting businesses with ethical hackers for bug bounty programs and offering Capture the Flag challenges to secure the digital world.
  Tech Stack: React, Vue.js, Django, PostgreSQL, Azure, Jenkins, SonarQube, Razorpay, Sentry, BetterStack
  Responsibilities:
  - Architected microservices-based backend with Django and PostgreSQL, integrated with React and Vue.js frontends for a seamless user experience.
  - Implemented CI/CD pipelines using Jenkins and SonarQube for automated deployments and code quality assurance.
  - Deployed the platform on Azure, optimizing for scalability and security.
  - Integrated Razorpay for secure payment processing in bug bounty programs.
  - Configured Sentry and BetterStack for real-time monitoring and logging, enhancing platform reliability.
- **Persius (Managed Marketplace for Creative Talent)** **link**
  Contributed to a microservices-based marketplace connecting creative talent with businesses, institutions, and individuals, offering jobs, gigs, workshops, and online courses.
  Tech Stack: HTML, JS, CSS, Bootstrap, Django, Ajax, Celery, Redis, AWS, Razorpay, MySQL, Docker, RabbitMQ, Grafana, SonarQube, Terraform, Jenkins
  Responsibilities:
  - Developed microservices for job listings, user profiles, and payment processing.
  - Integrated RabbitMQ for asynchronous task queues and event-driven communication.
  - Deployed services on AWS using Terraform and monitored performance with Grafana and Prometheus.
  - Ensured code quality with SonarQube and automated deployments with Jenkins.
- **Aethrone Aerospace (Web Application)** **link**
  Developed a web application for a deep tech startup incubated at SIIC-IIT Kanpur, supporting critical mission systems, platforms, and components for the aerospace and defense sector.

Tech Stack: Django, MySQL, React, Docker, Jenkins, SonarQube, DigitalOcean
Responsibilities:

- Built a scalable backend with Django and MySQL, integrated with a responsive React frontend.
- Implemented CI/CD pipelines using Jenkins and Docker, with SonarQube for code quality assurance.
- Deployed the application on DigitalOcean, optimizing for performance and reliability.
- Collaborated with stakeholders to align features with aerospace and defense requirements.

NOC Developer
Bharti Airtel Pvt. Ltd., Gurugram, Haryana | Nov 2021 – Nov 2022

- Led database development for a network operations dashboard, enhancing data management and real-time monitoring for telecommunications infrastructure.
- Contributed to network operation tools development, integrating REST APIs for automation and monitoring.
- Supported deployment pipelines with early adoption of microservices principles for scalable solutions.

Key Product:

- **Network Operations Dashboard**
  Developed a database-driven application to manage and visualize network operations data, improving efficiency in telecommunications monitoring and management.
  Tech Stack: Python, Django, PostgreSQL, REST API, Jenkins, Docker
  Responsibilities:
  - Designed and optimized PostgreSQL database schemas for real-time network data storage and retrieval.
  - Developed backend APIs with Django to support dashboard functionalities and data integration.
  - Implemented CI/CD pipelines using Jenkins and Docker for automated deployments.
  - Collaborated with network engineers to ensure data accuracy and alignment with operational needs.