Piyush Kunjilwar

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Education

Northeastern University, USA | Master of Science in Information Systems (GPA 3.83)   Sep 2023 – Dec 2025

Coursework: Web Development Methods and Tools, Data Structure and Algorithms, Cloud Computing and Network Structure

Professional Experience

Accenture, India | Software Engineer   Sep 2022 – Aug 2023

- Optimized system performance by refactoring legacy code and implementing scalable microservices architecture, reducing latency by 35% and improving system uptime to 99.9%
- Developed and deployed RESTful APIs using Spring Boot and Node.js, enabling seamless integration with third-party services and improving data exchange efficiency by 40%
- Designed and implemented real-time notification system using Kafka and WebSocket, improving user engagement by 25% and reducing response time to under 200ms
- Collaborated with cross-functional teams to deliver cloud-based SaaS solution on AWS, leveraging EC2, S3, and Lambda, which reduced infrastructure costs by 20% while scaling to support 1M+ users
- Improved code quality by introducing unit and integration testing frameworks (JUnit, Mockito), achieving 90% test coverage and reducing post-release defects by 30%

General Motors, India | Software Engineer Intern   Jan 2022 – Aug 2022

- Developed and deployed microservices on GCP-based application using Spring Boot and Docker, reducing service response time by 30% and improving scalability for handling 10,000+ concurrent users
- Enhanced vehicle telemetry data processing by designing and implementing real-time data pipeline using Apache Kafka and AWS Lambda, reducing data latency by 40%
- Optimized database performance by refactoring SQL queries and implementing indexing strategies, cutting query execution time by 50% for large-scale datasets
- Automated CI/CD workflows using Jenkins and GitLab, reducing deployment time by 60% minimizing intervention in release process
- Processed large-scale telemetry data with AWS EMR and PySpark, improving vehicle performance and cutting maintenance costs

Technical Skills

Programming Languages: Python, Java, C++, Scala, Typescript, R, Bash Scripting
Frontend and Backend Development: React.js, React Native, Node.js, Spring Boot, Flask, RESTful APIs
Cloud Computing: AWS (EC2, S3, RDS, Lambda, EMR, CloudWatch), Microsoft Azure (HDInsight, Blob Storage), Google Cloud Platform
AI/ML & Data Engineering: TensorFlow, PySpark, LangChain, spaCy, Kafka, Pandas, NumPy
DevOps/CI-CD: Jenkins, Docker, Kubernetes, GitLab, GitHub Actions

Projects

AI-Powered Dream Interpreter for Sleep Analysis | Link   Jan 2024 – Mar 2024

- Built an NLP-driven sleep analysis tool using GPT-4 and TensorFlow to interpret unstructured dream journals, achieving 85% accuracy in correlating user-reported patterns with clinical sleep disorder symptoms
- Integrated real-time IoT sensor data (EEG, heart rate) with a React Native app, reducing sleep disorder misdiagnoses by 30% through dynamic feedback loops and personalized sleep hygiene recommendations
- Slash data latency 50% using Apache Kafka on AWS Lambda, delivering sub-second sentiment analysis across regions, ages & genres
- Boosted user retention 25% with a WebSocket-powered conversational UI for iterative feedback

Sentiment Analysis & Visualization for Original Content | Link   Dec 2023 – Feb 2024

- Engineered a real-time sentiment dashboard using Streamlit and NLTK to process 1,000+ social comments/hour, identifying 60% positive sentiment for Netflix originals and enabling rapid A/B testing of marketing campaigns
- Boosted recommendation relevance by 40% by integrating Claude AI to analyze emotional tone and demographic data, generating hyper-personalized content suggestions for 50+ global markets
- Reduced data latency by 50% by deploying an Apache Kafka pipeline on AWS Lambda, allowing stakeholders to filter sentiment by region, age, and genre with sub-second response times
- Automate executive reporting via REST APIs to Slack/Teams, cutting weekly analysis time from 8 hours to 15 mins

Certifications

Oracle Cloud Infrastructure 2024 Generative AI Professional | Link   Jul 2024 – Jul 2026
Career Essentials in Generative AI by Microsoft and LinkedIn | Link   Jun 2024 – Jul 2026