

Akshay Kumar Pendyala

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SUMMARY

Software Engineer specializing in scalable backend services and API design. Delivered 20+ high-performance RESTful endpoints, modernized legacy platforms to reduce costs by 90% and save \$125K annually. Automated CI/CD pipelines and implemented robust test suites to ensure production reliability for high-traffic applications. Collaborative team player adept at diagnosing production issues and committed to writing clean, maintainable code in Ruby on Rails environments.

EDUCATION

California State University, East Bay

Master of Science, Computer Science

Aug 2023 - May 2025

Sreenidhi Institute of Science and Technology

Bachelor of Technology, Computer Science and Engineering

Aug 2017 - Jul 2021

EXPERIENCE

Mercor.io

AI Model Trainer

Sep 2025

San Francisco, CA

- Contribute to the development of AI and machine learning models by performing high-quality data labeling, annotation, and validation tasks across text, image, and video datasets.
- Support model training workflows through tasks such as entity tagging, image classification, and “spot the difference” exercises to improve dataset precision and model accuracy.
- Ensure data consistency and integrity by following project-specific labeling guidelines and providing feedback to enhance annotation frameworks.
- Collaborate with cross-functional teams to meet accuracy and throughput goals for AI data preparation projects.

BNSF Railway

Software Engineer

Jul 2021 - Jun 2023

- Architected and developed 20+ RESTful APIs in Java using Microservices Architecture to power real-time financial and audit data delivery, ensuring secure access with JWT-based security and role-based access control.
- Transformed a financial dashboard platform by migrating from IBM Alfablox to a modern stack (Ext.js, JSP, MySQL), reducing manual efforts by 90% and saving \$125k in annual operating expenses.
- Engineered and maintained an enterprise-grade ETL pipeline using Shell and Python to ingest and process 1M+ rows daily from TeradataDB and load into Amazon RDS, eliminating 100% of manual data aggregation and supporting high-performance operations.
- Streamlined development with automated CI/CD pipelines using Jenkins, GitHub, Docker, and AWS for Python services, reducing deployment time by 80% and minimizing regression issues by 50% through enhanced automation.
- Optimized SQL queries for critical reports, achieving a 40% improvement in response times and bolstering system scalability to handle high-volume transactions.
- Fortified application security by mitigating 1000+ vulnerabilities (e.g., SQL Injection, XSS, CSRF) in accordance with OWASP standards as determined by Checkmarx scan results.
- Mentored six team members on internal applications and best practices, promoting full-stack product ownership and continuous process improvement.

PROJECTS

LinkedIn Job Feedback Summarizer

- Designed and deployed an API-driven feedback system using AWS EC2 and S3, enabling real-time submission and retrieval of job-related feedback with efficient JSON-based data storage.
- Implemented a BART model to summarise user feedback, enhancing the decision-making process for job seekers through concise, data-driven insights in the Chrome extension.

Book.ly

- An Online bookstore built using HTML, CSS, JavaScript, Flask that shows all the available books, users can search for books, give ratings, add books to cart, purchase books.
- The recommender system is developed using a KNN model that takes in ratings given by user, interests and suggests books to users.
- There is also a dashboard for sellers to see the analytics of the sales, which helps in making an informed decision.
- The project was part of GSSOC'21 and had the opportunity to work with several other members from across the country.

Smart Social Distancing

- Detect and delineate individuals in live CCTV streams, ensuring precise social distancing adherence.
- Overhaul video processing efficiency utilizing Python, OpenCV, and YOLOv3.
- Achieve a remarkable accuracy rate of 95% in individual detection and boundary delineation.
- Integrate a user-friendly Tkinter interface, reducing monitoring time by 30%.

SKILLS

- Programming Languages:** Java, Python, JavaScript, SQL, PHP, Ruby
- Databases:** MySQL, Oracle DB, Oracle Essbase, Teradata DB, Amazon RDS, NoSQL, MongoDB
- Frameworks & Methodologies:** React.js, Ext.js, Node.js, Express.js, Flask, Bootstrap, AGILE, REST APIs, Spring Boot, AI/ML
- Development Tools:** Postman, Jenkins, GitHub, Git, Heroku, Netlify, AWS, Google Firebase, Apache, Tableau, Docker, Visual Studio, Checkmarx, JFrog, VersionOne Story Board
- Architecture & Security:** OAuth, Microservices Architecture, MVC Architecture

ACHIEVEMENTS

- Was among the first 5% finalists in Google HashCode 2020 out of 100,000 participants.
- Secured third place in a inter-college hackathon with more than 100 teams participating in this event.
- Was recognised and awarded a security award by BNSF Railway for actively maintaining the security of the applications.