Akshay Kumar Pendyala

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SUMMARY

Software Engineer specializing in backend services and API development with expertise in Java and Python. Developed and maintained microservices and RESTful endpoints to power real-time financial data delivery, modernized legacy platforms to reduce manual efforts by 90%, and automated CI/CD pipelines to ensure production reliability. Collaborative problem solver with a strong foundation in data processing and AI model workflows.

EDUCATION

California State University, East Bay **Aug 2023 - May 2025**
Master of Science, Computer Science

Sreenidhi Institute of Science and Technology **Aug 2017 - Jul 2021**
Bachelor of Technology, Computer Science and Engineering

EXPERIENCE

Mercor.io **Sep 2025 - Present**
AI Model Trainer *San Francisco, CA*

- Contributed to developing AI and machine learning models by performing data labeling, annotation, and validation tasks, enhancing dataset quality for text, image, and video datasets
- Supported model training workflows through tasks like entity tagging and image classification, improving dataset precision and enhancing model accuracy
- Ensured data consistency and integrity by adhering to project-specific labeling guidelines and providing feedback to improve annotation frameworks
- Collaborated with cross-functional teams in an AGILE environment to achieve accuracy and throughput goals for AI data preparation projects

BNSF Railway **Jul 2021 - Jun 2023**
Software Engineer

- Architected and developed 20+ RESTful APIs in Java using Spring Boot and 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 Alphablox to a modern stack (Ext.js, JSP, MySQL), reducing manual efforts by 90%, saving $125k in annual operating expenses, and enabling electronic transaction scalability
- Engineered and maintained an enterprise-grade ETL pipeline using Shell and Python to ingest and process 1M+ rows daily from TeradataDB into Amazon RDS, eliminating manual aggregation and supporting real-time risk analytics
- Streamlined development with automated CI/CD pipelines using Jenkins, GitHub, Docker, AWS, and Postman for API testing, reducing deployment time by 80% and minimizing regression issues by 50%
- 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

Reflect AI

- Built a privacy-first AI journaling web app (Flask + JavaScript) with interactive dashboards, streak tracking, and responsive UI under hackathon timelines.
- Integrated NLP-based sentiment analysis and AI-generated insights to deliver personalized mood trends and writing suggestions.
- Architected local-first data storage with JSON persistence, ensuring user privacy without sacrificing advanced analytics features.
- Took the project from ideation to demo, balancing clean engineering practices, clear documentation, and a polished user experience.

Smart Job Feedback Analyzer for LinkedIn

- 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.

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 thie event.
- Was recognised and awarded a security award by BNSF Railway for actively maintaining the security of the applications.