Akshay Kumar Pendyala

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EDUCATION

California State University, East Bay   **Aug 2023 - May 2025**
Master of Science, Computer Science
- **Coursework:** Machine Learning, Operating Systems, Advance Algorithms, Theory of Computation, Cloud Computing, Web Technologies, Cybersecurity

Sreenidhi Institute of Science and Technology   **Aug 2017 - Jul 2021**
Bachelor of Technology, Computer Science and Engineering
- **Coursework:** Operating Systems, Design and analysis of Algorithms, Theory of Computation, Cloud Computing, Web Technologies, Cybersecurity, Data Structures, DBMS, Java, Python, C, Data warehousing and data mining

TECHNICAL SKILLS

- **Programming Languages**: Java, Python, JavaScript, SQL, PHP
- **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
- **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

WORK EXPERIENCE

Infosys (BNSF Railway)   **Jul 2021 - Jun 2023**
Software Engineer
- Developed 20+ RESTful APIs in Java to serve real-time financial and audit data to frontend apps, handling 100K+ daily requests with JWT-based security and role-based access control.
- Migrated a financial dashboard platform aggregating data from IBM Alphablox to a modern stack using Ext.js, JSP, and MySQL, reducing manual efforts by 90% and cutting operating expenses by $125k every year.
- Built and maintained an enterprise-grade ETL pipeline using Shell and Python to ingest and process 1M+ rows daily from TeradataDB, eliminating 100% of manual data aggregation.
- Automated CI/CD pipelines using Jenkins, Git, and Shell scripting for Python-based services, reducing deployment time by 80% and minimising regression issues by 50% through automated testing and integration.
- Optimised SQL queries for critical reports, achieving a 40% improvement in response time and bolstering overall application scalability.
- Enhanced application security by mitigating 1000+ vulnerabilities such as SQL Injection, XSS, and CSRF through adherence to OWASP standards as per Checkmarx scan results.
- Mentored six team members with comprehensive training on internal applications and best practices, thereby accelerating their professional development.

Scytale Alpha Private Limited   **Dec 2020 - Jan 2021**
Software Engineer
- Revamped the company website using Bootstrap, which increased page views by 60% and reinforced brand recognition.
- Automated data collection by integrating a form submission system with the Google Spreadsheets API, improving operational efficiency by 80%.

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 a 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%.

Achievements
- Was among the first 5000 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.