AISHWARYA UYYALA

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PROFESSIONAL SUMMARY

- Leveraged 5+ years of experience developing full-stack applications using Java, Spring Boot, Angular, React, and REST APIs, improving enterprise system efficiency by 40%.
- Designed and optimized microservices architectures and SQL/NoSQL databases, reducing query latency by 50% and supporting high-volume, scalable applications.
- Deployed cloud-native solutions on AWS and Azure with CI/CD pipelines using Jenkins, GitHub Actions, Docker, and Kubernetes, accelerating release cycles by 40% while ensuring system reliability.
- Applied AI/ML techniques with Python, Pandas, Scikit-Learn, TensorFlow, and LangChain to automate processes, enhance decision-making, and enable intelligent data-driven applications.
- Delivered secure, user-centric software solutions with HIPAA and SOC2 compliance, maintaining high performance, reliability, and measurable business outcomes across healthcare and enterprise projects.

TECHNICAL SKILLS

Programming & Scripting: Java, Python, JavaScript (ES6+), TypeScript, SQL, Bash, C, C++.
Frontend Development: React.js, Angular, Next.js, HTML5, CSS3, Tailwind CSS, Bootstrap.
Backend Development: Spring Boot, Spring REST, Node.js, Express.js, Microservices, JPA/Hibernate, GraphQL.
Cloud & DevOps: AWS (EC2, S3, Lambda, RDS, API Gateway, CloudFormation), Microsoft Azure, Docker, Kubernetes, Jenkins, GitHub Actions, Terraform, CI/CD Pipelines.
Databases: MySQL, PostgreSQL, MongoDB, Oracle, Redis
Testing & Quality Assurance: JUnit, Mockito, Selenium, Cypress, Postman, Swagger.
Architecture & Design: RESTful API Design, Event-Driven Architecture, Cloud-Native Applications, Design Patterns, System Scalability.
Data Science & AI/ML: Pandas, NumPy, Scikit-Learn, TensorFlow, PyTorch, YOLOv7, RAG (Retrieval-Augmented Generation), LangChain.
Collaboration & Tools: Git, Bitbucket, Jira, Confluence, Figma, Power BI.
Operating Systems: Windows, Linux, Ubuntu.

PROFESSIONAL EXPERIENCE

Technology Specialist   June 2025 - Present
Pathfinder Village | Edmeston, NY

- Partnered with internal teams and external vendors to revamp the Pathfinder Village and Farmstead Market websites using WordPress and React.js, which raised accessibility compliance by 25% and boosted community engagement by 40%.
- By introducing standardized templates and CMS workflows in WordPress, publishing efficiency improved significantly while accessibility scores increased by 20% across all key site pages.
- Designed REST API integrations with MySQL and PostgreSQL databases that cut query response times by 35%, creating faster, more stable interactions for residents, families, and staff.
- Insights generated through Google Analytics and Power BI allowed leadership to track engagement trends, resulting in a 30% growth in monthly site visits and more targeted community outreach.
- Training staff on Microsoft 365, SharePoint, and CMS tools not only improved adoption rates by 40% but also reduced support tickets by 30%, while coordinated Jira and GitHub workflows ensured a 95% on-time project completion rate.

Software Engineer   Mar 2025 – Jun 2025
Reality AI Lab | San Francisco, CA

- Built enterprise-scale applications with Java, Spring Boot, and Angular that streamlined workflows and increased client operational efficiency by 40%.
- Modernized a legacy Audit Management system into a microservices framework using Docker and Kubernetes, enabling modular upgrades and reducing audit cycle time by 30%.
- Created REST APIs integrated with MySQL to manage over 10M records, which improved data reliability and ensured smooth communication between core business modules.
- Developed interactive Angular dashboards and reusable components that simplified navigation, boosting usability and raising adoption rates across client-facing platforms.
- Automated CI/CD pipelines with Maven, Jenkins, and Docker, minimizing deployment errors by 25% and establishing a predictable two-week release cadence.
- Coordinated release rollouts across AWS and on-prem environments while mentoring junior engineers through code reviews, sustaining 99.9% uptime and cutting onboarding time by 20%.

Multicultural Affairs Student Assistant   Sep 2024 - Dec 2024
SUNY POLY | Utica, NY

- Automated event attendance tracking with Excel formulas and pivot tables, reducing manual reporting time by 40% and ensuring 100% accuracy in weekly records.
- Designed digital promotional assets using Canva and PowerPoint, which boosted student participation in multicultural programs by 25% compared to previous semesters.
- Analyzed survey datasets with Python (Pandas, Matplotlib) to uncover engagement trends, providing insights that increased targeted outreach effectiveness by 18%.
- Developed Power BI dashboards to visualize diversity and inclusion KPIs, enabling leadership to make data-driven decisions on program planning and budget allocation.
- Created onboarding documentation and digital workflows in Word and Confluence, reducing new assistant training time by 30% and ensuring consistency in operations.

Graduate Research Assistant   Jan 2024 - Dec 2024
SUNY POLY | Utica, NY

- Modeled retinal blood flow using Python and MATLAB, improving simulation accuracy by 28% and enabling predictive analysis for research studies.
- Streamlined high-resolution image processing with OpenCV, increasing anomaly detection efficiency by 22% and enhancing dataset quality.
- Optimized MySQL data pipelines for simulation storage and retrieval, reducing query latency by 40% while maintaining HIPAA compliance.
- Automated preprocessing and feature extraction workflows in Python, saving 12+ hours per month and accelerating research throughput.

- Developed dynamic dashboards in Power BI to visualize simulation results, enabling researchers to interpret trends and make data-driven decisions faster

IT Support Operations Assistant   **Sep 2023 - May 2024**

SUNY POLY |Utica, NY
- Automated test scheduling using Python and Excel VBA, reducing manual coordination by 20% and ensuring timely testing for over 200 students.
- Implemented ADA-compliant digital testing systems, improving accessibility and decreasing setup errors by 30%.
- Optimized MySQL queries for accommodation data, cutting retrieval times by 35% and maintaining FERPA compliance.
- Developed interactive dashboards in Power BI to track testing metrics, enhancing reporting efficiency by 25%.
- Provided technical support for adaptive testing platforms, resolving 95% of incidents within SLA and minimizing disruptions for faculty and students.

Software Engineer   **Sep 2018 - Sep 2022**

Cognizant Technology Solutions |Bengaluru, India
- Spearheaded enterprise application development with Java, Spring Boot, Angular, and REST APIs, streamlining workflows and improving client efficiency by 40%.
- Transformed a legacy Audit Management System into a microservices-based architecture using Docker and Kubernetes, reducing audit cycle time by 30% and enabling modular upgrades.
- Engineered REST APIs integrated with MySQL to support 10M+ records, which improved data reliability and ensured seamless data flow across business modules.
- Developed interactive Angular dashboards and reusable UI components that improved navigation speed and accessibility, driving stronger adoption and user engagement.
- Automated CI/CD pipelines with Maven, Jenkins, and Docker while overseeing AWS and on-prem deployments, minimizing release failures by 25% and sustaining high availability.

PROJECTS

Automated Code Documentation
- Built a Python-based ingestion pipeline with AST parsing and static analysis, storing code embeddings in FAISS for fast retrieval.
- Implemented a RAG layer using LangChain and LLMs to generate accurate, context-aware documentation on demand.
- Deployed a FastAPI query service in Docker, enabling engineers to get instant code insights and cut time spent reading source files.

Semi-Supervised Machine Learning for DDoS Detection
- Engineered flow-level features from packet captures using Pandas and Scikit-Learn preprocessing, then applied clustering and label propagation to enrich training data.
- Trained an ensemble classifier with Scikit-Learn and XGBoost and deployed real-time scoring in a streaming pipeline using Kafka, enabling automatic alerting for anomalous traffic.
- Integrated the model into an IDS with containerized inference and logging to ELK, achieving 92% detection accuracy while minimizing false positives in live traffic tests.

Software Cost Estimation
- Aggregated historical project records and performed feature engineering on team size, complexity indices, and duration using Pandas and feature selection techniques.
- Trained regression models (Random Forest, XGBoost) with cross-validation and hyperparameter tuning to predict development cost ranges with calibrated confidence intervals.
- Delivered a REST endpoint for PM dashboards and exportable reports so stakeholders can forecast budgets and optimize resource allocation during planning cycles.

Object Detection with YOLOv7
- Fine-tuned YOLOv7, Faster R-CNN, and DETR on COCO and custom domain data, applying transfer learning and augmentation pipelines to improve domain recall.
- Benchmarked mAP, FPS, and inference latency across models using PyTorch and TensorRT optimizations to identify tradeoffs between accuracy and throughput.
- Packaged the selected model into a containerized inference service with OpenCV streaming so products could run real-time detection at the edge.

Android App Download Prediction
- Collected app store metadata, ratings, review text, and temporal trends, then engineered features including sentiment scores using spaCy and time-series lags.
- Built and validated XGBoost and neural network models with grid search and backtesting to produce weekly download forecasts and confidence bounds.
- Exposed predictions via a Flask API for marketing tools so teams could prioritize campaigns and improve user acquisition ROI.

Advanced Security in Cloud Computing
- Implemented end-to-end encryption with AWS KMS, enforced least-privilege via IAM policies, and segmented networks with VPCs to harden data in transit and at rest.
- Deployed GuardDuty, CloudTrail, WAF, and a SIEM ingestion pipeline to centralize telemetry and trigger automated alerts for suspicious activity.
- Ran periodic penetration tests and automated alerting workflows, feeding findings into remediation tickets so teams could close critical gaps faster and improve security posture.

EDUCATION

Master of Science in Computer and Information Science   **Jan 2023 - Dec 2024**
SUNY Polytechnic Institute | Utica, NY

Bachelor of Science in Computer Science & Engineering   **Jul 2018 - Aug 2022**
Sri Indu College of Engineering & Technology |Hyderabad, India

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CERTIFICATIONS & ACHIEVEMENTS
- AWS Cloud Practitioner Essentials - **Amazon Web Services**
- Microsoft Certified:Azure Fundamentals - **Microsoft**
- Crash Course on Python-**Google**
- IBM Python for Data Science, AI & Development - **Coursera**
- Full-Stack Web Development with React - **Coursera**
- Data Structures and Algorithms Specialization - **Coursera**
- **Ranked 649th nationally** in the **Unified Cyber Olympiad** conducted by Unified Council, showcasing strong problem-solving and analytical skills.