SURYA MEGHANA CHOCHUPATLA

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EDUCATION

Villanova University | PA | USA   December 2022
Master Of Science, Computer Science
Relevant Coursework: Foundations of Algorithms and Data Structures, Design & Analysis of Algorithms, Machine Learning, Cloud Computing, Containers & Microservices, Software Engineering & Health Informatics, Theory of Computation.

Gayatri Vidya Parishad College of Engineering | India   September 2020
Bachelor of Technology, Information Technology
Relevant Coursework: Object Oriented Programming, Distributed Systems, Probability & Statistics, Computer Vision and Image Processing, Operating Systems, Database Management Systems, Computer Network, Engineering Mathematics, Computer Architecture.

PROFESSIONAL EXPERIENCE

Software Development Engineer I | Amazon | US   June 2022 – Jan 2025

- Architected event-driven systems using **AWS SQS, SNS, Lambda,** and **DynamoDB**, leveraging **AWS CDK/CloudFormation** for scalable, repeatable deployments, and aligning with High level/Low Level design documentation to meet business objectives.
- Developed scalable backend services in Java and automated machine learning workflows using Python scripts and CI/CD pipelines, integrating custom-trained machine learning models for Personally Identifiable Information (PII) Extraction with **AWS Textract** and **Medical Comprehend**, enabling prescription digitization for **Amazon India Pharmacy**.
- Designed dynamic, responsive **React.js** UI components with **Redux**, improving user interaction for pro-active budget allocations, catalog browsing, and prescription validation workflows.
- Automated comprehensive ML model performance metrics generation across workflows such as Prescription Segregation, Digitization, and Order Approval, enhancing monitoring and decision-making capabilities.
- Achieved **6x efficiency** improvements by reducing pharmacist processing time from 60 to 10 minutes, optimizing workflows with asynchronous processing, scalable infrastructure, and ML integrations.
- Delivered full-stack technical solutions for an employee holiday gifting product, contributing to **$3 billion** in business revenue, showcasing expertise in building scalable, impactful, and user-centric systems.
- Deployed systems with **Docker** and automated **CI/CD pipelines** using **Jenkins** and **Git**, ensuring efficient, error-free production releases.
- Conducted rigorous unit and integration testing with **Junit, Mockito**, **PyTest** and **Postman**, ensuring end-to-end reliability and seamless functionality of critical workflows.
- Implemented fault-tolerant systems with advanced error-handling mechanisms, retry logic, and **DynamoDB** logging, ensuring uninterrupted processing and high reliability under load.
- Configured **CloudWatch metrics** and **alarms** for real-time monitoring of key performance indicators, enabling proactive anomaly detection and system optimization.
- **Skills:** AWS Lambdas, Athena, EC2, SQS, SNS, CloudFormation, S3, DynamoDB, CloudWatch, Step Functions, IAM, Java, Python, JavaScript, React.js, Junit, Mockito, PyTest, Image Processing, Optical Character Recognition, Docker, Git.

Software Engineer | Cognizant | India   Jan 2020 – December 2020

- Developed a full-stack web application using **HTML**, **CSS**, **jQuery**, and **MVC** Framework for an interactive UI, integrating views and partial views for efficient rendering.
- Implemented **client-side** validations using **JavaScript** and **jQuery**, ensuring a seamless user experience.
- Built backend logic with **Java Server Pages** (**JSP**) to manage order workflows, menu updates, and approval processes.
- Utilized **MySQL** for data storage and synchronization of user orders, menu availability, and administrative actions in real-time.
- Designed an approval workflow for menu changes, ensuring updates are reflected instantly post-approval.
- **Skills:** Java, HTML, CSS, JavaScript, jQuery, Spring MVC, JSP, MySQL, Selenium.

SKILLS

Languages: Java, Python, C, JavaScript, React.js, HTML, CSS, Angular, Spring MVC, Spring Boot, jQuery, TypeScript.
Technical Skills & Tools: AWS, Data Structures, Algorithms, Junit, Mockito, CI/CD, NumPy, Pandas, NLTK, Scikit Learn, Amazon Herd UI, PyTorch, RESTful API, JSON, XML, Git, JIRA, Kafka, Docker, Jenkins, IntelliJ, VS Code, PyCharm, Eclipse, Selenium.
Databases: AWS DynamoDB, MySQL, Oracle, MongoDB, NoSQL

ACCOMPLISHMENTS

- **Above and Beyond Award**: Recognized for exceptional technical expertise and innovative problem-solving skills, driving impactful solutions
  that exceeded expectations and contributed to organizational success.
- **SAS Risk Owner:** Identified and resolved critical operational excellence (OE) issues, improving system reliability by 20% and ensuring full compliance with organizational standards and audit requirements.
- **Scrum Master & Initiative Lead:** Acted as Scrum Master, fostering collaboration and driving team efficiency. Initiated and led a *Lunch and Learn* series, enabling team members to share expertise and gain insights into emerging technologies and practices.
- **System Resilience Enhancements:** Developed canaries for Tier-1 services, enabling early detection and mitigation of critical system failures, significantly reducing downtime and customer impact.