CHOWDARY MANIKANTA YARRAMANENI

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SUMMARY

- IT professional with over 4 years experience in **Java/J2EE, React technologies, Data Structures and Algorithms**, Cloud infrastructure, System Design and proficiency in SDLC, **Agile, SCRUM methodologies**.

TECHNICAL SKILLS

Programming Languages	Java (8/14/17), Kotlin, Scala, C, C++, C#, Python, JavaScript (JS), TypeScript (TS), VBA (Visual Basic for Applications), Shell Scripting (Bash), Streams, multi-threaded.
Web & UI Technologies	HTML, CSS, React.js, XML, JSP (JavaServer Pages), Angular, AngularJS, Vue.js, Node.js, JQuery, Ajax, Bootstrap, GraphQL.
Frameworks, Middleware	SpringMVC, SpringBoot, SpringORM, Microservices, SpringSecurity, Hibernate, UI/UX, Servlets, Apache Commons, EJB, J2EE, Apache Tomcat, Spark, JDBC, MapReduce.
Databases	RDBMS (Relational DBMS): MySQL, PostgreSQL, SQL Server, Oracle. NoSQL (Non-relational): MongoDB, Cassandra, Redis, HBase, DynamoDB
Big Data and Pipelines	Hadoop, Hive, Pig, Spark, Kafka, BigQuery, ETL (Extract Transform Load) data pipeline.
Cloud & DevOps	AWS (EC2, ECS, Lambda, RDS, VPC, IoT), Microsoft Azure App Services, Google Cloud Platform (GCP, GKE, GCS, Compute Engine, SDK), Docker, Kubernetes, Jenkins, GitLab CI, Travis CI, CircleCI, CI/CD(Continuous Integration/Deployment), Terraform, Prometheus, Grafana, ELK Stack(Elasticsearch, Logstash, and Kibana).
Messaging Systems	Kafka, RabbitMQ, JMS (Java Messaging Service)
Testing Frameworks	JUnit, Mockito, Selenium, PyTest, Cypress, Mocha, Jest, Postman, JMeter, K6 TDD (Test-Driven Development), BDD (Behavior-Driven Development)
Version Control	Git (GitHub, GitLab, Bitbucket), SVN (Apache Subversion), Open Source ecosystems.
BI & Analytics	BI (Business Intelligence) tools, BigQuery, Metrics and Dashboarding, Capacity planning.
Platforms & Tools	operating systems(Linux/Unix, Windows), JVM, SaaS (Software as a Service), PaaS (Platform as a Service), Firewall, VPC(Virtual Private Cloud), Visual Studio, Eclipse, IntelliJ IDEA, Maven, Gradle, NPM, Jira, MS Office (Outlook, Excel, Word).
Engineering Practices	Agile, Scrum, SDLC (Software Development Life Cycle), Code Reviews, Documentation, UX/UI-Collaboration, Prototypes, Compliance, Production Support, Incident Response, Risk management, Communication skills, Attention to detail, Problem-solving.
Collaboration Skills	Cross-functional teams, Interpersonal communication/ Interpersonal skills, Decision-making, Project management, Product delivery, open-source projects
AI, ML Algorithms	Supervised Learning(Regression, Decision Trees, SVM, k-NN), Unsupervised (K-Means), Deep Learning, Natural Language Processing, Tokenization, TensorFlow, PyTorch, OpenCV.

WORK EXPERIENCE

Ultimate Tool & Safety   Oct 2023 - Present
Software Engineer-(TypeScript, JavaScript, ReactJS, NodeJS, REST API, Docker, AWS)   *Arlington, TX*

- Developed and deployed scalable software application covering **full-stack engineering(front end, back end), database administration, load balancing**, and web hosting. Leveraged **React, Redux, NodeJS, TypeORM, PostgreSQL, Nginx, and AWS** for robust system architecture, ensuring seamless data flow. Utilized a range of **IDE (VSCode)** for development and debugging, ensuring efficient coding and problem resolution. Developed **SQL scripts** and stored procedures to support complex data operations and analytics.
- Employed advanced **CSS** techniques to create responsive web pages, enhancing user experience.
- Revamped role-based access control using **JSON Web Tokens (JWT)**, cutting unauthorized access incidents by 43%. Enhanced security with precise permissions and integrated **Elasticsearch** to support secure, fast, and scalable search features. Implemented **Redis caching** to improve data security and reduce query response time by 100%. Automated procedures using **Ajax** and **TypeScript**, enhancing efficiency by 75%.
- Proposed **Twilio** email API-based alerting, boosting user engagement by 40% through timely customer service.

- Utilized containerization with **Docker** and **Kubernetes**, ensuring high availability in deployment environments.
- Designed and executed unit, integration, and end-to-end tests for APIs and UI components using **Jest, Mocha, and Cypress**, improving reliability by 30%. Conducted load testing with **JMeter and K6**, ensuring scalability.
- Developed **TypeScript**-based testing scripts to automate repetitive testing tasks, increasing efficiency by 50%.
- Led development of **microservices**-based systems, enhancing scalability and deployment flexibility by 40%, with a strong focus on **SDLC** best practices and clean architecture.
- Built and optimized workflows across business domains using **Django** and **ORM** frameworks and integrations with **ServiceNow for ITSM automation**, improving process automation efficiency by 30%.
- Planned deployment strategies with **AWS(Amazon EC2)** for scalable and reliable cloud hosting, including **Nginx** for load balancing. Set up detailed metrics, custom dashboards, and alerts using **AWS CloudWatch**, improving system reliability and reducing downtime by 60%. Used **Infrastructure-as-code (IaC) tools like Terraform and AWS CloudFormation** to provision and manage cloud infrastructure efficiently.
- Designed and implemented **ETL processes** to extract, transform, and load data across systems, optimizing data workflows for analytics and reporting. Improved data security with **role-based access controls**, reducing query response time by 100% through caching.
- Incorporated decision-making algorithms to support data-driven features and business logic. Utilized debugger tools, prototypes, and logging to diagnose production issues and ensure reliability in CI/CD pipelines.

Graduate Student Assistant   Jan 2023 – May 2023
State University of NewYork at Albany   *Albany, NY, USA*

- Worked as a Student Assistant for the course named "Advanced Programming Concepts," which mainly focuses on Standard Meta Language, Ordered Hyperresolution, and Lambda Calculus. Graded assignments and monitored the academic progress of junior students.

Systems Engineer   May 2019 - Dec 2021
Tata Consultancy Services Pvt ltd   *Hyderabad, India*

- Developed the FTTP Tracker application at British Telecommunications (BT), integrating it with internal GIS (Geographic Information System) tools using advanced data structures, algorithms, and spatial mathematics, enabling high-performance visualization and routing.
- Led Agile ceremonies (daily standups, retrospectives) using Jira; reduced fiber/Ethernet connection paperwork by 45%, saving 150+ hours per field engineer.
- Built scalable back-end services using Spring (MVC, Core, AOP), Servlets, EJB, Hibernate ORM, and POJO classes. Applied OOP, SOLID principles, and design patterns (Factory, Singleton, Strategy); maintained modular codebase with 85% test coverage and 98% reusability.
- Designed responsive front-end with React.js and Redux/Flux architecture, improving user interaction and reducing page load time by 30%.
- Deployed Java EE components via Apache Tomcat and WildFly; integrated JDBC, JMS, and XML-based services for enterprise-level interoperability. Validated JPA entity constraints with Hibernate Validator, ensuring database integrity across deployments.
- Integrated RESTful and SOAP APIs using JAX-RS, JAX-WS, and Swagger/OpenAPI; implemented OAuth2 security, reducing API-related downtime by 60%. Implemented GraphQL APIs for efficient data fetching and flexible client queries; reduced over-fetching issues and improved front-end performance by 35%.
- Developed scalable, concurrent backend modules in Scala using Akka and Play Framework; enhanced throughput and reduced processing latency in data-intensive workflows.
- Implemented NoSQL solutions with MongoDB, Redis, and Cassandra to support daily operations and provide low-latency access to structured data. Designed distributed applications, event-driven microservices using Apache Kafka and Rabbit MQ, reducing inter-service communication latency by 45%.
- Achieved 92% unit test coverage using JUnit, Mockito, TestNG; improved feedback loops with Arquillian and WireMock, cutting test time from 1 hour to 15 minutes. Automated CI/CD pipelines using Jenkins, GitLab CI, Maven, Gradle, Docker, and Kubernetes, reducing build and deployment time by 70%.
- Deployed cloud computing or cloud-native applications leveraging AWS (EC2, Lambda, S3, DynamoDB, RDS, ECS, CloudTrail, CloudWatch) and managed infrastructure using Terraform.

- Designed and implemented data pipelines with real-time and batch ETL processing using Hadoop, Kafka, Spark, AWS Glue, AWS Athena, and BigQuery for ingesting, transforming, and querying large-scale datasets; optimized data ingestion and reduced latency by 50% and accelerated analytics workflows, enabled predictive insights.
- Monitored system health using Prometheus and Grafana and ELK Stack; implemented ISO-compliant security protocols and firewall/VPC configurations, cutting MTTR by 35%.
- Collaborated with cross-functional teams to gather user requirements, specs, and translate business specifications into scalable technical solutions using JSP, Spring MVC, and JSTL; multitasking cross-functionally in fast paced environments and effectively ensured alignment with business objectives and delivered high-impact features with 30% faster turnaround. Learned new technologies quickly and took an entrepreneurial approach to problem-solving, and extended to firmware software for non-volatile memory.
- Led code reviews and enforced compliance with ISO standards and security policies; provided production support and troubleshooting for Java-based applications, reducing post-deployment issues and maintaining 99.9% uptime.

Cyber Security Intern - Malware Analysis   Apr 2018 – May 2018
Cybervie-Ionots Technologies Pvt Ltd   *Hyderabad, India*

- Used **Regshot**, **SQLMap**, **OSForensics**, detected and neutralized malware, increasing malware detection accuracy by 25%, and removed rootkits with **GMER** and **RootRepeal**, enhancing system integrity by 40%.

SDE Intern - ASP.NET   May 2017 – June 2017
Electronics Corporation of India Limited (ECIL)   *Hyderabad, India*

- Created an intuitive, responsive web interface using **ASP.NET MVC** and modern front-end frameworks like **Bootstrap and JavaScript**. Implemented robust backend using **ASP.NET** Core.

EDUCATION

Master of Science, Computer Science, State University of Newyork at Albany, NY   Jan 2022 – May 2023

Bachelor of Technology, Computer Science, RVR and JC College of Engineering, India July 2015 – Apr 2019

PROJECT EXPERIENCE

- **Centralized Event Planner - Internship** *[Java, ASP.NET, C#, HTML, CSS]* Revolutionized event management as an intern by crafting a Centralized Event Planner, streamlining coordination by 20%.
- **Ordered Hyperresolution - Master's project** *[Python, First order Logic]* The goal of minimizing the size of the clause set and swiftly removing the number of literals in the clause set is to increase the reasoning effectiveness of the resolution principle in propositional logic
- **Smart Billing** *[Python, ReactJS, YOLO V3 Object detection]* Pioneered Smart Billing solution merging Python, ReactJS, and YOLO V3 Object Detection. Achieved 30% reduction in billing errors, enhancing accuracy.
- **Product Shopping** *[Mongodb, Express JS, React JS, Node JS]* This is a MERN Stack project, in which we built an eCommerce shop using the MERN stack, Redux Toolkit, MongoDB database, seeded data, created the UI, managed the state with Redux, and authenticated with JWT.
- **Heart Disease Prediction using Data Mining Techniques** *[Python, Machine Learning Algorithms]* Engineered a groundbreaking Heart Disease Prediction system in Python, employing ML Algorithms. Achieved 90% accuracy in prognosis, aiding medical professionals in preemptive care.
- **Passport Automation System** *[PHP, HTML, CSS, Javascript]* Web application for effective dispatch of passports to all of the applicants in PHP, JS, CSS, HTML using the XAMPP tool.
- Built a dashboard in Vue.js and deployed it on Azure App Services.
- Built serverless APIs with GCP Cloud Functions for a microservices architecture.

CERTIFICATIONS

- **Amazon Web Services Cloud Practitioner** *[April 2025]*
- **MERN — eCommerce Platform** *[June 2023]* Credential ID: UC-263b06ad-58e8-464e-b2f2-efbdf35e8cae
- **Artificial Intelligence by Programming Hub** *[August 2022]* CREDENTIAL ID: 1659501164851
- **Theory of Computation by NPTEL IIT Madras** *[September 2017]* CREDENTIAL ID NPTEL17CS34S1310415