

# Vidya Sagar Reddy Desu

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## EDUCATION

**Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science**

*Master of Science in Computer Science | GPA: 3.81/4.00*

*January 2023 – Expected December 2024*

**Sreenidhi Institute of Science and Technology, Hyderabad, India**

*Bachelor of Technology in Computer Science and Engineering*

*July 2013 – May 2017*

## TECHNICAL SKILLS

**Programming Languages:** C, C++, Java, JavaScript, Python, PL/SQL, GraphQL

**Web and Cloud Technologies:** CSS, HTML, Amazon Web Services (AWS), Azure

**Frameworks/Library:** Spring boot, REST API's, Hibernate, Angular

**Databases:** MySQL, Oracle SQL, MongoDB, DynamoDB, Redshift, Sybase, Neo4J

**Tools:** Git, JIRA, Jenkins, Docker, CI/CD, Kubernetes, Maven, TeamCity, Visual Studio Code, IntelliJ IDEA, Spring Tool Suite

**Others:** Agile methodologies, Microservices, Software Development Life Cycle, Kibana, Kafka, Junit, Mockito, Drools, Confluence

**Coursework:** Advanced Algorithms and Data Structures, Operating Systems, Database Systems, Design Patterns, Cloud Computing

## PROFESSIONAL EXPERIENCE

**Binghamton University, Graduate Teaching Assistant** | Binghamton, NY

*August 2023 – Present*

- Guided 35 students through lab sessions, quizzes, and assignments, fostering deeper comprehension of the curriculum while elevating student learning through hands-on AWS services and graph database projects, illustrating practical course concepts.
- Facilitated 1:1 and small group support through email correspondence and weekly office hours, offering SQL and Python programming guidance to further student comprehension of key course concepts and technologies.

**IBM India Private Limited**

*April 2018 – December 2022*

*Sales Workstation, Software Development Engineer* | Hyderabad, India

- Managed trade management system design and product development cycles for front and middle office sales teams; enhanced efficiency by 40% through procedure overhaul within the SWS global trading platform.
- Administered trading for credit and rates products across cash and derivatives, serving as subject matter expert on SWS platform; improved user experience by 25% in inquiry interface through root cause analysis and resolution of systemic issues.
- Ensured 100% accuracy in processing complex financial transactions including trade capture and allocations.

*Billing Gateway, Application Developer* | Bengaluru, India

- Designed and developed 5 scalable REST APIs to securely extract customer data from legacy systems, enabling accurate billing for new BGW-AYA-Brixton platform; conducted comprehensive regression testing and UAT across interfaces.
- Led end-to-end implementation of Bill Charge Preview workflow using Spring Framework, Java/J2EE and CI/CD pipelines; supervised Agile development of optimized microservices generating over 1M accurate customer invoices monthly.
- Facilitated in Agile/Scrum processes, contributing to over 20 sprint planning sessions, daily stand-ups, and retrospectives.

*Service Delivery Transformation, Associate System Engineer* | Chennai, India

- Integrated the Enterprise validation system with a rule engine via process-driven architecture for seamless interaction; enhanced EO-EOE-EOV business workflow, achieving a 15% reduction in data validation time while maintaining 100% accuracy.
- Maintained 100% accuracy in validating essential attributes against predefined acceptable values; established a controlled framework for rule execution, increasing validation robustness and providing cumulative results.

## PROJECT EXPERIENCE

**Stock Price Forecasting** | Binghamton, NY

*January 2024 – February 2024*

- Conceptualized effective data retrieval techniques to acquire historical stock data, ensuring data integrity, validity, consistency.
- Implemented advanced time-series forecasting models for improved stock trend predictions and generated visual data reports.

**AWS - Databricks** | Binghamton, NY

*November 2023 – December 2023*

- Developed SQL Warehouse using AWS CloudFormation Stacks to optimize data management and visualization.
- Created an efficient workflow pipeline for Delta LIVE tables with SQL Warehouse schema, achieving data storage efficiency.

**Retail Business Database Management System** | Binghamton, NY

*April 2023 – May 2023*

- Built a menu-driven Java application with JDBC connectivity, contributing to a 100% database interaction efficacy.
- Automated updates and ensured integrity with stored procedures and triggers, achieving a 40% reduction in manual effort.

**Simulator for an in-order pipeline for CPU instructions** | Binghamton, NY

*February 2023 – April 2023*

- Built an in-order 11-stage pipeline CPU with an instruction decoder that executed instructions with a forwarding mechanism.
- Simulated with arithmetic instructions and branching instructions that resulted in over 25000 cycles.

## CERTIFICATION AND ACHIEVEMENTS

- Awarded Microsoft Azure Fundamentals certification in April 2021, gaining cloud expertise in Azure services.
- Drove innovative solutions spearheading major service transformation resulting in IBM 2020 "Service Excellence Award"
- Honored with IBM 2019 "Best Graduate Hire Award" as top performer among 350+ recent graduate hires.