

Vishal Tak

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EDUCATION

The University of Texas at Austin- Austin, TX

May 2022

Bachelor of Science in Computer Science – GPA: 3.72

Relevant Coursework: Data Structures, Software Engineering, Artificial Intelligence, Operating Systems, Algorithms

SKILLS

Languages: Python, Java, C/C++, R, HTML/CSS, and JavaScript/TypeScript, Gremlin

Technologies: SpringBoot, REST API, GitHub, Docker, PgAdmin, AWS, GCP, Flask, Postman

Certifications and Awards: AWS Solutions Architect, CSSE Associate and Professional, Patent filed for SQL Query Combiner, Diamond Award for RENUW

EXPERIENCE

Capital One- Plano, TX

August 2022 – Present

Associate Software Engineer

- Collaborated on a pivotal initiative to transition a code-based decisioning system for car loans into an advanced graph orchestration framework.
- Spearheaded the authoring component, optimizing graph structure by implementing an algorithm that reduced connection-building time by 10%, streamlining the graph's creation process.
- Introduced parallel thread execution using the Java concurrency library, achieving a 50% reduction in execution time and significantly enhancing system performance.
- Conceptualized and implemented a visual representation of the graph using Angular and JavaScript, enhancing system understandability for non technical audiences.
- Engineered a high-performance execution engine, ensuring efficient traversal and execution of complex decisioning structures. Identified and resolved node execution errors, enabling the successful execution of ~1000 nodes.
- Demonstrated technical leadership by driving the development of critical components, contributing to the overall success of the graph orchestration initiative.

ShopLC- Austin, TX

July 2020 – May 2021

Machine Learning Engineer Intern

- Analyzed machine learning models to predict inventory costs and profits using Python, resulting in significant improvement in inventory management.
- Developed classification models using Python to predict customer mediums of sales to improve marketing strategies.
- Achieved 50% improvement in model training and prediction time through utilizing Python's multiprocessing library.

PROJECTS

RENUW

- Contributed to developing a new and innovative graph based car loan decisioning system, leveraging an array of cutting-edge technologies such as Java SpringBoot, AWS, Angular, JavaScript, and Gremlin.
- Led and presented in discussions around work on authoring and execution to business stakeholders, ensuring alignment with project goals.
- Implemented comprehensive unit testing, ensuring the reliability and robustness of the authoring and execution components. Utilized the Spock unit testing framework to conduct thorough tests, enhancing code quality and identifying potential issues early in the development lifecycle.

LEADERSHIP & COMMUNITY INVOLVEMENT

CODERS- Plano, TX

August 2022 - Present

- Volunteered with Coders to mentor middle school students in a 12-week course on HTML and CSS.
- Guided students through hands-on projects, empowering them to create their own websites independently.
- Contributed to community development by imparting essential coding skills to the next generation.