MY PORTFOLIO

Macha Padmini

Software Engineer

Professional Summary

"As a passionate and dedicated computer science student, I aim to leverage my strong foundation in programming, problem-solving, and software development to contribute to innovative projects in a dynamic, growth-oriented environment. With hands-on experience in various technologies and a keen interest in cybersecurity and artificial intelligence, I am committed to applying my skills to develop impactful solutions that drive efficiency, security, and user-centered design."

Work Experience

Cognizant Technology Solutions, Hyderabad. Process Executive - Data Accomplishments: - Analyzed data anomalies in Cash Equities and Fixed Income Products, and generated profit and loss (P&L) reports. - Monitored data pipelines to ensure accurate ingestion for daily reconciliation tasks. - Executed daily reconciliations for UK and US datasets, ensuring data consistency and synchronization. - Managed end-to-end processes to comply with SLAs, minimize errors, and reduce client escalations. - Utilized automation tools for P&L reconciliation and collaborated with teams to resolve data issues and support system migrations.

INTERNSHIP - JMARATHON ADVISORY SERVICES PVT LTD "Basics of Indian Stock Market and International Currency Market." Accomplishments: - Analyzed the dynamics of rapidly evolving and volatile financial markets. - Developed an understanding of primary and secondary market structures and their operational mechanisms. - Assessed the risk factors associated with various investment strategies, focusing on their potential impact. - Optimized strategies to meet both short-term and long-term investment objectives.

Projects

INTERACTIVE TETRIS GAME - Fundamentals of Game Development: The project of developing Tetris with Python and Pygame provides a practical introduction to essential game development concepts, emphasizing object-oriented programming (OOP) for effective management of game components.

IMPLEMENTING REINFORCEMENT LEARNING IN GAMING - Mario Agent Development: Developed and trained the "Mario Agent," a reinforcement learning agent, using OpenAI Gym and the nes-py emulator. The agent autonomously navigates the Mario game, successfully dodging obstacles, collecting power-ups, and completing levels.

Education

UNIVERSITY OF NEW HAVEN, New Haven, CT Aug 2023 - May 2025
Masters in Computer Science - GPA: 3.8/4.0
Relevant Courses: Artificial Intelligence, Algorithm Design and Analysis, Web-Database Appl Development, Cloud Computing & Big Data.

Certification

Java Programming: Proficient in object-oriented programming, data structures, and application development using Java frameworks. - Python Programming: Skilled in data analysis, web development, and automation with libraries like Pandas and Flask.

Skills

SQL (Structured Query Language): Proficient in writing complex queries for data retrieval, manipulation, and analysis. Experienced in database design, normalization, and optimization. Familiar with relational database management systems such as MySQL and PostgreSQL.

Python: Proficient in Python programming for data analysis, automation, and web development. Experienced with frameworks and libraries such as Pandas, NumPy, Flask, and Django. Strong understanding of object-oriented programming and data visualization techniques.
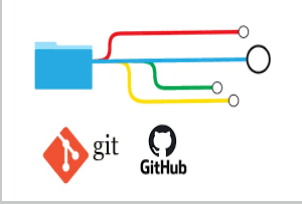
Java: Proficient in Java programming, focusing on object-oriented design, data structures, and algorithms. Experienced with Java frameworks such as Spring and Hibernate for building scalable applications. Strong understanding of software development principles and best practices.

Blogs

"5 Common Mistakes in Coding and How to Avoid Them"

"Version Control Best Practices: A Guide to Git and GitHub"

"Building Effective Unit Tests: A Key to Bug-Free Code"

📄   ✉   🐱   💼