Vaidehi Kalra

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Education

Rochester Institute of Technology, New York **Aug'21-May'24**
Master of Science in Computer Science *GPA : 3.56*
Poornima Institute of Engineering & Technology, India **Aug'16-Sep'20**
Bachelor of Technology in Computer Science & Engineering

Technical Skills

Programming Languages: Java, Python, Rust, C/C++, Shell, Cypher Query Language, SQL, HTML5, Javascript, CSS
Technologies : REST APIs, JSON, Docker, GIT, Redux
Clouds & Databases: AWS, Microsoft Azure, MySQL, MongoDB, Neo4j, DyanamoDB, Redis, PostgresSQL
Framework & Libraries: React Native, ReactJs, Springboot, Node.js, Flask
Tools: Gradle, GitHub, Bitbucket, Postman, VsCode, Eclipse, PyCharm, IntelliJ IDEA, JIRA, Confluence

Experience

Software Engineering Intern - London Stock Exchange Group, Buffalo, NY **Sep'23-Dec'23**
- Developed a module for generating JSON requests within a Springboot application using HTML5, CSS, and JavaScript.
- Implemented dynamic page additions and interactive features to enhance functionality.
- Integrated Spring Boot services for secure user license validation.
- Utilized Handlebars.js for structured JSON format display.

Freelance Developer - Orion Solutions, India **May'20-Aug'20**
- Developed the HighSchool application using Ionic and AngularJS, implementing Neomorphism design.
- Provided features like personalized feeds, real-time updates, and seamless chat functionality.

Projects

T&C-AI : Chrome Extension for Terms & Conditions Parsing **Aug'24**
- Developed a Chrome extension that leverages LLM to summarize and highlight key points from webpage terms and conditions, integrating **LLaMA 3.1** with a **Flask** server.
- Enabled users to quickly understand complex legal text, with future plans to optimize response time, enhance UI/UX, support multiple languages, and deploy the backend to the cloud.

Revolutionizing Knowledge Graph Embeddings - RIT **Jan'24-Apr'24**
- Integrated neural networks using PyTorch's nn.Sequential into the AugmentedKGE library, enhancing scalability and maintainability, showcasing the benefits of modular design in Knowledge Graph Embeddings.
- Implemented and tested the ConvE model on datasets like WN18 and WN18RR, demonstrating improved modularity without sacrificing performance.

Graph Pattern Matching (Subgraph Isomorphism) **Aug'22-Dec'22**
- Developed a subgraph isomorphism algorithm in **Java** and **Cypher for Neo4j graphs**, optimizing with candidate computation and backtracking techniques.
- Achieved a 30% performance boost, reducing processing time from 90 minutes to 15 minutes through strategic algorithm enhancement.

Vehicle Search Application **Apr'23**
- Created a high-performance search application using **MongoDB**, **ReactJS**, and **Hooks**, efficiently handling 60,000 documents.
- Leveraged **Python** and **Flask** for backend processing, with geospatial features enhancing search precision and user satisfaction.

Candy shop- Infrastructure as a service **Apr'23**
- Orchestrated the construction, design, and execution of an advanced **Infrastructure-as-a-Service** (IaaS) platform by engineering four high-performing services, including monitoring & alerting, logging and event streaming, and an optimized in-memory database in **Rust**, enhancing operational efficiency, preventing data replication, and mitigating server load.