Rahul Kumar

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4 years of software development with a knack for problem-solving, analytical thinking and attention to detail. Skilled in object-oriented design, with proficiency in C#, .NET, JavaScript, Python, and system design.

EDUCATION

M.S in Computer Science *Arizona State University, AZ, GPA: 4.0/4.0*   Dec 2023
B.Tech in Electronics & Communication *MIT, Manipal, GPA: 8.85/10.0*   May 2019

EXPERIENCE

Software Developer Assistant   Jul 2022 – Dec 2023
Arizona State University   *Tempe, AZ*
- Demonstrated expertise in performing **ETL** processes, using Python to transform data sourced from S3 buckets and efficiently integrating it into a data catalog platform via REST API.
- Designed and launched Python automation for real-time data alignment between **AWS S3** and Google Sheets. Integrated realtime notifications via webhooks to promptly alert discrepancies on a dedicated Slackchannel.

Software Developer   Jul 2019 – Dec 2021
Siemens   *Pune, India*
- Built a C# multi-threaded desktop application with **WPF**, integrating a cost review approval system backed by **SQL Server**. This led to a notable 40% increase in estimate booking speed for field users within the sales estimation tool.
- Led the development of a dynamic reporting dashboard using **SQL stored procedures**, enhancing cost discrepancy detection by 50% and improving data analysis and decision-making efficiency.
- Optimized **ASP.NET MVC** applications by writing efficient code for web requests and responses, integrating complex business logic and **web services** for enhanced performance.
- Worked on legacy code to improve the performance of the sales estimating tool and used **design principles** to make code more maintainable and extendable.

PROJECTS

GoalSetter | *MongoDB, Express.js, React, Node.js*   Fall 2023
- Designed and implemented a full-stack web application, leveraging **Node.js** to build a responsive REST API, complemented by a dynamic frontend developed using **React**.
- Developed a user dashboard with features to add and delete user's goals, integrated with **JWT authentication** for secure user access.
- Constructed CRUD APIs optimizing user and goal functions with **MongoDB** integration.

Extended RDF DBMS | *Java, Maven*   Spring 2022
- Engineered an RDF **DBMS** atop the relational Minibase DBMS, introducing features like BatchInsert and advanced query functionalities.
- Devised varied execution strategies for join operations and assessed their performance using different buffer sizes and filter queries.

Image based search engine for e-commerce products | *Python, OpenCV, Keras*   Spring 2022
- Built a **recommendation engine** that selects the top-5 most similar products to an input image using CNN architectures, Euclidean distance, and nearest neighbor techniques like KD-Tree, HNSW, and Annoy.

TECHNICAL SKILLS

Languages: C#, C++, Python, SQL, Java, HTML/CSS, JavaScript
Frameworks/Technologies: React, Redux Node.js, Express.js JUnit, NUnit, WPF, .NET Core, Bootstrap, REST API, MongoDB, PostgreSQL
Developer Tools: Git, Docker, AWS, VS Code, Visual Studio, IntelliJ, SQL Server, Crystal Reports, JIRA
Libraries: pandas, NumPy, Matplotlib, OpenCV, LINQ , JSON

AWARDS

Spot award, Siemens 2021 : Handling last moment change requests and helping test team achieve timely product delivery.