Anirudh Sharma

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Education

Indiana University	Bloomington, IN
Master of Science in Computer Science	08/2022 - 05/2024
Guru Gobind Singh Indraprastha University	Delhi, India
Bachelor of Technology in Computer Engineering	08/2015 - 10/2019

Technical Skills

Programming/Scripting C#, Asp.NET, VB.net, Python, SQL, Javascript, XML, Json, HTML5, CSS3.
Cloud and API Services: Azure DevOps (CI/CD), AWS (S3, EC2, RDS, SQS, SNS), GraphQL, REST, OpenAPI.
Databases: MSSQL, PostgreSQL, T-SQL, MySQL, Redis, Apache Spark, MongoDB, Neo4j.
Frameworks: ASP.NET Core, ASP.NET MVC, Microservices, Bootstrap, Angular, Vue.js, React, jQuery, AJAX, Kafka.
Developer Tools: Git, Docker, Postman, VS Code, Visual Studio, IIS Server, GitLab, Bitbucket, JIRA, NuGet.

Experience

Software Engineer — 12/2023 - present
Department of Linguistics, Indiana University — Bloomington, IN
- Developed a comprehensive data pipeline for non-profit organization filings with the IRS, leveraging Alteryx for seamless data extraction from APIs and Python Pandas for preprocessing, thereby ensuring data integrity, consistency, and availability.
- Implemented **exception handling** techniques for MySQL insertions, including error logging and transaction rollback mechanisms, safeguarding data integrity, and ensuring a **99.9%** smooth operation rate in the IRS data management process.
- Utilized NetworkX and Neo4j for advanced analytical knowledge graphs, improving data insights and interconnectivity
- Designed a novel recommender system employing Sage, GAN, and GNN algorithms within a knowledge graph framework, increasing grantee selection efficiency by **30%** and supporting over **150** successful grant allocations.

Application Developer Intern — 06/2023 - 12/2023
Department of Linguistics, Indiana University — Bloomington, IN
- Leveraged **MVC** pattern to Engineer an e-learning platform using ASP.NET Core, integrating real-time collaborative tools with SignalR, enabling multiple Boogie Board devices to interact within shared digital whiteboards.
- Devised **Blazor** for interactive UIs, enhancing educational activities on Boogie Board devices, and developed RESTful APIs to improve data exchange, scalability, and user experience.
- Structured the data management system with Entity Framework and MSSQL, employing LINQ queries for user data retrieval.
- Created **CI/CD** pipelines in Azure DevOps, streamlining e-learning platform updates and seamless delivery.
- Efficiently managed and prioritized project tasks using JIRA, enhancing user story tracking for improved team delivery.

Software Engineer — 11/2021 - 06/2022
Marlabs Inc. — Pune, India
- Engineered a web application with C#, jQuery, SQL, and Entity-based **ORM**, streamlining the warehousing and retrieval of medical imaging documents, enhancing operational efficiency for over **200** medical personnel.
- Introduced a comprehensive role-based authorization system in ASP.NET Core using Identity and claims, strategically defining roles and securing application endpoints to enable precise user access control and enhance security features.
- Engineered a data lake integrating multiple disparate data sources, employing advanced indexing and automated processes, which reduced query times by **90%** and achieved annual savings of **$5,000**.
- Used AJAX and asynchronous programming to optimize web API calls and implemented **Dependency injection** to manage service dependencies efficiently, enhancing UI responsiveness and enabling seamless data updates without page reloads.

Software Developer — 02/2019 - 06/2021
TBO.com — Gurgaon, India
- Crafted a security solution with .NET Core 3.1, safeguarding **10,000** assets and preventing over 200 unauthorized accesses.
- Enhanced threat detection with real-time analysis by integrating Splunk, Nexus, and other security endpoints using **HTTP Web API**, streamlining data acquisition and improving system responsiveness.
- Organised and produced over 20 frontend pages using Bootstrap, CSS, jQuery, and **Razor**, adhering to responsive web design principles, and incorporated AJAX to bind data from the backend in real-time seamlessly.
- Refined database performance with **stored procedures**, triggers, indexing, cutting query times by half.
- Automated daily REST API calls with **Cron job** integration, ensuring up-to-date data in tables through SQL CDC.
- Streamlined build and deployment with **Jenkins** in an Agile/Scrum setting, fostering adaptive, collaborative development.

Projects

HealthStream Connect | *.NET, MSSQL, Docker, RabbitMQ, gRPC*
- Created a healthcare application using .NET 6, structured around two key microservices for patient and provider management, integrating RabbitMQ to ensure reliable, real-time data exchange across the network.
- Strategically employed an NGINX API Gateway to fortify security measures, incorporating rate limiting and SSL termination for robust data protection and streamlined access control.
- Exploited data transfer objects, repository pattern, and AutoMapper to manage data and object mapping in the project.
- Employed Kubernetes and Docker to manage containerized images and streamline deployment with YAML configuration, ensuring seamless scalability and efficient resource utilization.