Danush Kumar Rajasekaran

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WORK EXPERIENCE

HA IT Solutions - Software Engineer Intern | *United Health Care* Oct 2024 - Present

- Debugged and resolved 10+ software defects, leading to a 5% improvement in system reliability.
- Developed and deployed a comprehensive batch job strategy utilizing Spring Batch, directly contributing to streamlined operations that fixed three critical performance bottlenecks impacting application reliability for end users.
- Optimized PostgreSQL queries using JDBC, reducing query execution time by 2%, as measured via Datadog.
- Collaborated cross-functionally in an Agile environment, ensuring seamless integration of Spring MVC web modules.

The Sparks Foundation | *Web Developer Intern* Sept 2021 - March 2022

- Streamlined data-processing modules by eliminating redundant code, improving overall processing efficiency by 6%, and resulting in the system's ability to manage multiple data transactions daily without performance degradation.
- Assisted in comprehensive documentation, streamlining knowledge transfer and project continuity.

PAPERS AND PROJECTS

Assignment Tracker | April 2024 - May 2024

- Built a full-stack Java Spring Boot application with role-based access and automated task reminders. Deployed using Docker and PostgreSQL, ensuring seamless data storage and high availability. User can add an assignment and set the type, status and due date of the assignment.

Towards Anatomy Education with Generative AI-based Virtual Assistants in Immersive Virtual Reality Environments | *University of Delaware* Feb 2023 - Jun 2023

- Created the virtual reality environment for conducting the user study using Unity while incorporating existing Avatar models from an API and served as tech support. The Avatar model improved performance by roughly 50%.

Analysis and Comparison of Machine Learning Algorithms in Heart Disease Prediction System | *Anna University* Jul 2021 - Jul 2022

- A cross-comparative research study to find the effect parameters have in a heart disease prediction system in various machine learning algorithms. Analyzed Naive Bayes and SVM algorithms using python and machine learning. The model had an accuracy of 93%.

Nissan-Renault Car Recommendation System | *Anna University* Jan 2021 - June 2021

- Developed a full-stack car recommendation web application for Nissan-Renault using HTML, CSS, JavaScript, and Node.js. Built a Python-based recommendation model, achieving 91% accuracy in predicting user preferences.

SKILLS

- **Languages:** Java, JavaScript, Python, TypeScript, SQL, C
- **Frameworks:** Spring Boot, Angular, Node.js, Express.js, Bootstrap
- **Databases:** PostgreSQL, MySQL, MongoDB, Oracle
- **Tools & Technologies:** Git, GitHub, Docker, JUnit, Google Cloud, Kafka, AWS
- **Development Methodologies:** Agile, REST API Design, CI/CD Integration, Software Testing
- **OS:** Windows, Linux
- **Courses:** Software Engineering Practices, Software Testing and Maintenance, Object Oriented Analysis and Design, Database Management Systems, Algorithms and Data Structures, Computer Networks

EDUCATION

Masters in Computer and Information Sciences May 2024

University of Delaware, Newark, Delaware GPA: 3.6/4.0

Bachelor's in Computer Science and Engineering July 2022

Anna University, Chennai, India GPA: 3.33/4.0