

Rounak Biswas

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SUMMARY

Highly motivated and detail-oriented software engineer with a Master's in Computer Science and Engineering from the University at Buffalo. Proficient in full-stack development, distributed systems, and data analytics, with expertise in Python, Java, SQL, React, and Spring Boot. Proven track record of developing scalable applications and enhancing data processing efficiency. Strong problem-solving skills and team collaboration.

EDUCATION

University at Buffalo, The State University of New York <i>Master of Computer Science and Engineering</i>	Aug 2022 - Jun 2024 GPA : 3.5/4.0
West Bengal University of Technology <i>Bachelor of Computer Science and Engineering</i>	Aug 2016 - May 2020 GPA : 3.3/4.0

EXPERIENCE

Graduate Researcher <i>University at Buffalo, State University of New York</i>	GitHub	Sep 2023 - Jun 2024
<ul style="list-style-type: none">Developed testing framework using Ounit for the choreographic language compiler.Engineered backend for IR to OCaml conversion, enabling efficient distributed communication.Played a vital role in pioneering the choreographic language compiler, driving breakthroughs in distributed computing research.		

PROJECTS

Secure and Scalable MVC-Based System Java	Jul 2023 - Nov 2023
<ul style="list-style-type: none">Implemented a Spring Boot application with a React frontend, adhering to the MVC design pattern.Ensured data integrity through field validation and employed Beans for flexible dependency injection.Established a SQL-backed REST API through Spring Data JPA for seamless database interaction.Secured and documented the RESTful API with OpenAPI, Basic, and JWT authentication.	
Full-Stack Web Application Development React, JavaScript	Jul 2023 - Sep 2023
<ul style="list-style-type: none">Created a full-stack web application using JavaScript and React, developing practical exposure to proficiency in modern web development.Integrated an online database and API with Supabase for improved interactivity and content management.Deployed project on Netlify, demonstrating ability to take a web app from development to public access.	
Region-Based Memory Management C++	Aug 2022 - Dec 2022
<ul style="list-style-type: none">Collaborated on the creation of a region-based memory management solution for the Ardupilot/ArduCopter drone software suite.Introduced a Static library in C++ to allocate heap memory in contiguous chunks, enhancing predictability and reducing fragmentation.Integrated the region library into the ArduCopter codebase to optimize memory usage.	
Hospital Management Systems SQL, HTML, CSS, Flask	Jan 2023 - May 2023
<ul style="list-style-type: none">Guided UI design with HTML/CSS and Flask-based backend for healthcare professionals, optimizing data access.Enhanced Data Accuracy and Compliance in PostgreSQL with Scalable Architecture.Developed and programmed a dynamic website integrating with our database, providing real time query visualization and results display.	

TECHNICAL SKILLS

Languages:	Python, Java, SQL, JavaScript, HTML, CSS, Golang (Go), C, C++
Technologies:	Docker, Kubernetes, Spring Data JPA (SQL), Token-based Authentication (JWT), OpenAPI, REST API, Pandas, NumPy, Matplotlib, Seaborn.
Frameworks:	React, Flask, Spring, Spring Boot, JUnit, Hadoop, PySpark, Tensorflow.
Tools:	Git, GitHub, VS Code, PyCharm, JIRA, Jupyter Notebook, Maven, Postman.