Rishabh Agarwal

Software Developer Engineer - II at Schrödinger

B.Tech in Computer Science & Engineering

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GitHub

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EXPERIENCE

- **Schrödinger India Pvt. Ltd.** *July 2023 - Ongoing*

  Software Developer II - Enterprise Informatics Hyderabad

  – Led the design, development, and deployment of a **horizontally scalable**, **fault-tolerant** data ingestion service, migrating from a legacy monolithic architecture, resulting in a **30%** reduction in operational costs.
  – Developed a vertical scaling solution for LiveDesign's data ingestion monolilth service that supported unlimited processes to run parallely, improving data load speed by **50%** during incremental runs.
  – Contributed to the development of an Incrementally Maintained Views (IVM) solution, optimizing data load times for computational models in LiveReport, achieving a **5x performance improvement**.
  – Designed and developed a **filtering service** to support intricate boolean expressions filtering for experiment data over LiveReports, empowering scientists to conduct precise, targeted searches.

  Skills: Java, Python, Spring Boot, Kafka, Kubernetes, PostgreSQL, GCP, Prometheus

- **Schrödinger India Pvt. Ltd.** *June 2022 - July 2023*

  Software Developer I - Enterprise Informatics Hyderabad

  – Designed and developed robust Java and Python services, integrating key features to facilitate the transition from a monolithic architecture to a scalable microservice architecture.
  – Developed and implemented a metadata service enabling complex analysis of experimental metadata, resulting in enhanced user experience and configurable data visibility.
  – Implemented a wide range of miscellaneous improvements and bug fixes for the LiveDesign Backend, enhancing functionality, stability, and user experience.

  Skills: Java, Python, Spring Boot, Kafka, Kubernetes, RDBMS, GCP

- **D. E. Shaw & Co.** *May 2021 - Jan 2022*

  Associate Software Developer Intern - Computational Science & Technology Hyderabad

  – Developed a proof of concept (PoC) for a high-performance microservice to support viewing and searching billions of experimental assays and computational models in a hierarchical tree structure, leveraging ArangoDB as the backend graph database.
  – Researched a unique approach to persist the entire hierarchy in a safe and scalable manner while also offering a significant performance increase of 90% compared to a memory-based older service.

  Skills: Databases, Java, Python

EDUCATION

Degree	Institute/Board	CGPA/Percentage	Year
B.Tech in Computer Science Engineering	Indian Institute of Technology (IIT), Ropar	9.64	2018-2022
Senior Secondary	Central Board of Secondary Education	95.4%	2018

TECHNICAL SKILLS

- **Programming Languages**: Java, Python, C/C++, JavaScript
- **Web Technologies & Framework**: Spring, Spring Boot, Django, Flask, ReactJS
- **Databases**: PostgreSQL, ArangoDB, Neo4j
- **Miscellaneous**: Apache Kafka, Kubernetes, GCP, Docker, Git, NGINX

KEY COURSES TAKEN

- **CSE**: Programming in Modern C++, Data Structures and Algorithms, Applied Cryptography, Database Systems, Computer Organization, Operating Systems, Computer Networks, Blockchain and & Game Theory
- **Maths**: Linear Algebra, Probability, Statistics

MISCELLANEOUS

- **Mentored**, junior developers & interns during my stint at Schrödinger.
- **Interviewed**, over 50 candidates during my stint at Schrödinger for the roles of junior developers and summer interns.
- **Technical Blogger**, on **Medium** and **Hackernoon**, where I writes everything about Software Engineering!
- **Codeforces**, Expert | Ranked 8762/100000 Globally and 958/30000 Nationally | Max Rating 1728 | **the_infinity1** *2021*
- **AtCoder**, Max Rating 1016 | **the_infinity1** *2021*
- **Institute Merit Certificate and Scholarship**, For being in the top 1% of College Merit List. *2018-2021*