

Mrigank Sagar

 mriganksagar |  +919069168030 |  mriganksagar@gmail.com |  mrigank-sagar

Software engineer and a linux enthusiast.

Education

Delhi Technological University

B.TECH IN COMPUTER ENGINEERING

Delhi, India

2017 - 2021

- **CGPA:** 8.0 out of 10.0.
- **Relevant Coursework:** Distributed systems, Information & network security, Big-data analytics, Compiler design, Theory of computation, Artificial intelligence.
- **Lab Internship:** Simulated computer networks with Mininet to study routing under various topologies and loads and create optimised routing tables for Software Defined Networks(SDN).
- **Bachelor thesis:** Proposed an ontology-driven approach to document software systems, improving maintainability; Published in conference.

Rajkiya Pratibha Vikas Vidyalaya (C.B.S.E)

12TH GRADE SENIOR SECONDARY

Delhi, India

2016-2017

- Achieved 92.2 percent marks and class rank 3 out of 105.
- Graduated from one of the highly reputed grammar schools in Delhi.
- Awarded by the Chief Minister of Delhi for excellence.

Experience

Optum (UHG)

FULL-STACK SOFTWARE ENGINEER

Gurugram, India

2021 - Present

- Key contributor to Onepass, a comprehensive fitness care platform offering gym and various membership benefits, and Admin-portal, an internal client onboarding and management platform.
- Leveraged Scala with purely functional libraries such as Cats-effects and Quill to create highly reactive and scalable backend microservices, resulting in 40% less response time under high loads.
- Designed event-driven applications with kafka and postgresSQL to ensure reliable data-flow across microservices.
- Built microservices written in Java with Springboot and Node.js to expose REST and GraphQL APIs ensuring seamless integration with frontend applications.
- Created responsive frontend applications with React.js and Next.js with server side rendering.

Publications

- *Ontology Driven Software Development for better Understanding and Maintenance of Software System.* Proc. ICTSCI 2022, pp. 73–81, Springer, 2022. (Co-authored with Kushal Kumar and Kumar Abhijeet under mentorship of Dr.Rohit Beniwal).

Projects

Torrent Downloader

DESIGNER/DEVELOPER

2023 - 2024

- Developed a torrent client to download torrents only using the browser without the need for additional service or installations.
- Leveraged React.js and Shadcn to create a responsive UI and Webtorrent.js to power the torrent client.

Certificates

Mar 30, 2024 **Functional Program Design in Scala**, Epfl, Coursera

Skills

Programming languages	Scala, Java, Typescript, Javascript, C++, C, Python, Typst
Technologies	Springboot, Play, React.js, Next.js, HTML/CSS, PostgreSQL, GraphQL
Scala ecosystem	Cats, Cats-effects, Play, Akka actor system, Akka / Pekko streams, Slick, Quill
Tools & platforms	Git, Docker, Podman, Kubernetes, Linux
Languages	English, Hindi, German

Awards and Achievements

- Certificate of excellence for perfect CGPA (by Education Minister of India).
- Ranked in top 1% in JEE Mains and Advanced; IIT eligible.
- Medal awarded by Chief Minister for exceptional performance in JEE exams.
- Scholarship recipient for JEE prep by Delhi Government.

Activities and Interests

- Volunteered in orphanages and slums teaching Science and Life Skills.
- Hobbies: Chess, Guitar, English literature, and Music.