Ekam Singh Chahal

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Education

Northeastern University, Khoury College of Computer Sciences **September 2022 – May 2024**
Master's of Science in Computer Science, GPA: 3.96/4.00 Boston, MA
Related coursework: Distributed System, Web Development, Database Systems, Machine Learning

Jaypee Institute of Information Technology **July 2016 – July 2020**
Bachelors's of Technology in Computer Science, GPA: 9.40/10 Noida, India
Related coursework: Algorithms & Data Structures, Operating Systems & Compilers, Computer Networking

Technical Skills

Programming Languages: Java, C++, JavaScript, Python, Typescript, HTML, CSS
Web Technologies/Frameworks: Java SpringBoot, Node.js, React, Redux, Express, Docker, Git, HTTP REST APIs
Databases: Hibernate/JPA, Relational Databases, MySQL, NoSQL, PostgreSQL, MongoDB, Redis

Professional Experience

Algorithms & Java Teaching Assistant **May 2023 – May 2024**
Northeastern University Boston, MA
- Directed students on **algorithm** concepts and **object-oriented** design, resulting in a 20% increase in average coursework grades.
- Proposed a constructive feedback system, resulting in a 30% increase in positive course evaluations; mentored over 100 students in programming languages such as **Java & C++**.

Software Development Engineer-I **December 2021 – June 2022**
Amazon Bangalore, India
- Drafted and wrote comprehensive **design documentation** for the Chewbacca migration project, focusing on the payment product feature in the UK market for SPC page, serving a customer base exceeding 4 million.
- Integrated SPC system with CBCC cards for Amazon's UK payments market using **Java**, collaborating with financial institutions like Barclays, resulting in revenue generation exceeding $40 million.
- Formulated approach and resolved 2 customer **Java** bugs in NxEPP Germany market affecting over 1 million users.
- Resolved 2 Sev-2 tickets in on-call rotation, actively engaged in system design, **testing**, architecture, and **code review** to ensure system stability and reliability.

Software Engineer **July 2020 – December 2021**
Oriserve Noida, India
- Restructured and maintained code for 60+ automated data reports using **Node** cron, demonstrating strong problem-solving skills.
- Set up scalable product using **JavaScript** for automatic report generation, removing need to generate reports manually by 100%.
- Deployed feature for report monitoring & logging using **Express** , slashing number of error debugging by 90%.
- Enhanced running time of larger duration reports by almost 100% by innovating an efficient and scalable method for saving and retrieving cumulative reports data (up to 1 year) in a compressed form onto **MongoDB** databases.
- Programmed code for 10+ API requests using **Node.js** and **MongoDB** syncing solutions in for seamless report data integration.
- Leveraged **Redis** as a session data store for agents, resulting in a 90% reduction in real-time customer assignment latency, thereby significantly improving system performance and operational efficiency.
- Collaborated in conducting 30+ **Javascript & data structures** focused technical interviews and played a key role in the successful hiring of 10 software engineers, contributing to the formation of a skilled and qualified team.

Projects

Pinterest Clone Full-stack Web Application **February 2024 - May 2024**
- Developed a **multi-threaded** web app featuring user signup, exploration, pin uploading, commenting, and deletion capabilities.
- Followed **MVC design pattern** for application's backend using **Node.js**, **React** for responsive front end, and **relational databases**. [Github]

Blog Springboot Web Application **August 2023 - August 2023**
- Developed a **Java Spring Boot**-based web service facilitating user profile creation, blog creation and management, reading of other users' blogs, and interaction functionalities such as liking and commenting.
- Defined **SQL** tables/queries for storing data regarding 100+ user profiles, blogs, likes, and comments **databases**. [Github]

Virtual Stock Java Application **October 2022 - December 2022**
- Programmed a **Java**-based terminal and GUI application using **Java Swing** and the **MVC** design pattern, proficiently managing data for the top 470 company stocks of the S&P 500 share index along with extensive **JUnit testing**.
- Devised logic and executed various application features, including stock addition/sale functionalities on specified dates, portfolio valuation, composition, and performance analysis for data spanning up to 10 years. [Github]