

Rachit Gupta

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Education

Rutgers University - New Brunswick

September 2022 - May 2026

Bachelor of Science in Computer Science

GPA: 3.84/4.00

- **Coursework:** Data Structures, Algorithms, Computer Architecture, Principles of Programming Languages, Principles of Information and Data Management, Machine Learning Principles, Intro to Artificial Intelligence, Linear Algebra

Experience

PlayStation

May 2025 - August 2025

Software Engineering Intern

San Francisco, CA

- Engineered an end-to-end Flink stream-processing pipeline in Kotlin ingesting 5M+ Kafka events daily to calculate the previous PS+ subscription tier for a user, enabling it as an attribute for user segmentation and targeted marketing
- Integrated subscription pipelines with AWS DynamoDB and Aerospike, utilizing checkpointing and backpressure handling to deliver 1M+ filtered events/day for user segment recalculation with <1s latency
- Created a Flink/Snowflake backfill job deployed on Kubernetes to populate the previous subscription tier for 200M+ accounts at 162K records/sec, ensuring full historical coverage for all PlayStation users
- Built a segment audit trail microservice (Java, gRPC, MySQL), reducing segment related tickets for 10+ teams by 75%

Octaura

June 2024 - August 2024

Software Engineering Intern

New York City, NY

- Developed a Java Spring Boot admin-level microservice with a RESTful API to manage over 200 client traders' permissions (entitlements) and authorization levels, securing access for high volume (\$1M+) loan trades
- Implemented a write-through Redis cache to store client trader entitlements during active sessions, ensuring data consistency with a PostgreSQL database and reducing query latency by 23%
- Built a React.js interface for platform teams to authorize clients in production, cutting manual backend updates by 85%

Undergraduate Teaching Assistant

June 2023 - May 2024

Rutgers University

New Brunswick, NJ

- Conducted 60 recitations for over 120 students in a Calculus II course with 1500+ total enrollees, providing targeted assistance that improved student engagement and understanding
- Authored detailed solutions for 50+ workshops, resulting in a 80% reduction in grading time for instructors

Rutgers University - Cloud Computing Organization

October 2022 - Present

Cofounder & Vice President

New Brunswick, NJ

- Lead a team of 5 officers to present fundamentals of AWS, Azure, and GCP, arranging 24 weekly workshops
- Organize interactive cloud-based projects for 202 members, enhancing hands-on learning and retention by 41%

Projects

SpeedChat | Java, Spring Boot, Redis Cache, Redis Pub/Sub, Kafka, PostgreSQL, Docker, React.js

- Developed a microservices-based real-time chat platform using Java Spring Boot, supporting 1000+ concurrent users with secure OTP-based authentication and chatroom management
- Built a Kafka batch service for high-volume chat message storage, efficiently persisting data to PostgreSQL and Redis
- Optimized message delivery using Redis Pub/Sub for low-latency broadcasting on horizontally scaled WebSocket nodes

Moodify | Python, TensorFlow, scikit-learn, Java, Spring Boot, Flask, MySQL, React.js

- Built an LSTM machine-learning model with TensorFlow and scikit-learn trained on 500k+ sentences to classify emotions with 94% accuracy, powering personalized Spotify playlist recommendations from short journal entries
- Added OAuth 2.0 with JWT authentication in a Spring Boot REST service, securing user access and data protection

Skills

Programming Languages: Java, Python, Kotlin, Scala, SQL, TypeScript, JavaScript, C, Go

Technologies and Frameworks: Spring Boot, PostgreSQL, Redis, Kafka, AWS (S3, DynamoDB), Flink, Spark, Snowflake, Docker, Flask, MongoDB, Kubernetes, Git, TensorFlow, Postman, Websockets, React.js, Next.js

Concepts: Backend Development, Software Engineering, Distributed Systems, Microservices, Data-Driven Systems, Machine Learning, RESTful APIs, Caching, Unit Testing, Agile, CI/CD