Ritwik Singh

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SUMMARY

Backend Software Engineer with 3 years of experience building and scaling high-throughput payment systems. Backend owner of the Payment Links platform at PayU, handling 140K+ links/day and 500+ TPS.

EXPERIENCE

PayU Payments   *July 2025 – Present*
Software Engineer

- Owned architectural redesign of Payment Links backend by consolidating two services into a single scalable system with optimized APIs, database schema, caching layers, and asynchronous workflows.

- Backend owner for platform managing 140K+ links/day and peak traffic of 500+ TPS.

- Designed read-heavy architecture (80–90% traffic) using MySQL read replicas for high availability and horizontal scalability.

- Achieved sub-200ms response times via multi-level caching using Redis and in-memory caches.

- Engineered bulk processing engine handling 2,000 records per batch for asynchronous merchant link generation.

PayU Payments   *July 2023 – June 2025*
Associate Software Engineer

- Implemented backend logic for Payment Links lifecycle handling across 6 states ensuring consistency and idempotency during retries and concurrent payment attempts.

- Published 20M+ lifecycle events/month to Kafka supporting asynchronous notifications and webhooks.

- Optimized high-volume SQL queries reducing average read latency by 20% under peak load.

PayU Payments   *January 2023 – June 2023*
Software Engineer Intern

- Contributed to backend development across 3 lending service modules used in production.

- Improved pre-production bug detection by 15% via automated API testing and reduced manual regression effort by 40%.

- Achieved 90%+ SonarQube coverage through unit tests and static analysis.

- Improved debugging by propagating correlation IDs across services, reducing investigation time by 20%.

EDUCATION

SRM University   B.Tech in Computer Science and Engineering
CGPA: 9.37

SKILLS

Languages: Java, SQL
Backend: Spring Boot, REST APIs, Microservices
Databases & Messaging: MySQL, Redis, Kafka
Cloud & Tools: AWS (EC2, RDS), Docker, GitLab CI/CD, Grafana, Git