Ayush Awasthi

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Innovative Software Developer with a Passion for Technology

Experience

via.com, *Software Development Engineer* | Noida, India *March 2022 - Present*

- Developed recharge and credit Services functionality, allowing users to conveniently top up and take credit from their Via accounts, increasing consumer product usage by 15%.
- Designed, developed, and implemented payment gateway and Insurance solutions to facilitate seamless transactions for users.
- Integrated credit and debit card processing capabilities enabling users to make secure payments for their travel bookings.
- Implemented Advanced Analytics dashboards using Apache Kafka to track payment trends, identify opportunities for improvement, and optimize payment processing efficiency.
- Reduced payment authorization latency from 1.2s to 400ms by implementing Redis caching for merchant account data and optimizing Hibernate queries with batch processing and second-level cache.

Lovely Professional University Lab, *Research Assistant* (Prof. Tanima Thakur) | Punjab, India *Sep 2021 - Jan 2022*

- Develop and evaluate differential control synthesis algorithms for multi-agent systems.
- Conduct perception and RL research on Stock Market During COVID, focusing on causal inference and counterfactuals for RL.

Lovely Professional University Lab, *Research Assistant* (Prof. Barjinder Singh)| Punjab, India *Jan 2022 - Mar 2022*

- Led an 5-person team to develop a fiducial-marker-based localization model for an unstable camera feed.
- Optimized the localization model using f V-rep for real-time camera feeds, achieving a calibration error of ≤0.5%.
- Incorporated a unit testing framework with automated test cases to validate the auto-evaluator model.

Education

8.2/10 **BTech in Computer Science Engineering**, *Lovely Professional University* | Punjab, India *2018-22*

Courses: System Design | Machine Learning | Database | OS | Algorithm | Data Structures | Design Optimization | Controls

Skills

Programming Java, Python, C++, R, JQuery, LaTeX, HTML, CSS, AJAX, JSON
Software Linux, Git Hub, AWS, Docker, Eclipse, Redis, Kafka, Tomcat, MySQL, MongoDB, PostgreSQL
Version Control Git, CI/CD, Gradle, Jenkins, Maven, Postman
Languages English, Hindi, Spanish
Qualities Problem-Solving Ability, Effective Communication, Attention to details, Adaptability to technological trends, Team Work

Projects

Distributed Ecommerce Market *Aug 2023 - Dec 2024*

Java, Spring Boot, Redis, Kafka

- Designed a scalable e-commerce platform using microservices (product, order, payment, user services).
- Implemented Redis for caching product catalog and user sessions, reducing DB load by 40%
- Used Kafka for real-time order processing and event-driven notifications (e.g., order confirmation).

Scalable Real-Time Messaging and Notification Service *Dec 2022 - April 2023*

Redis, Spring Boot, Microservices, and Kafka

- Implemented Kafka for asynchronous message queuing & distribution, enabling high-throughput communication between services.
- Leveraged Redis for session management and caching of frequently accessed notification data, significantly reducing latency.

Real-Time Fraud Detection System *Aug 2023 - Dec 2024*

Java, Spring Boot, Kafka Streams, Redis

- Designed and implemented a system capable of analyzing 5,000 transactions per second (TPS), demonstrating strong performance.
- Leveraged Kafka Streams for real-time transaction pattern analysis and feature engineering, providing critical data for ML models.

Certificates

2023 **Spring boot Specialization**, Certificate, Coding Ninjas - Completed *Online*
2021 **Data Structure and Algorithm in C++ and Java**, Certificate, Coding Ninjas - Completed *Online*

Publications

Automobile safety system using Yolo and Cassandra *Jan 2022 - April 2023*

International Journal of Emerging Technologies and Innovative Research

- Integrated YOLOv7 and performance enhancements led to a 7% success rate boost in object navigation per path length.
- Collaborated on a deep RL model, leveraging On Policy & Local Policy, Integrated RRT to path planning replacing Fast Marching.

Pre and Post Covid Stock Market Study Using Neural Network and Random Forest *Jan 2022 - April 2023*

International Journal of Advance Computational Engineering and Networking (IJACEN)

- Developed models utilizing Neural Networks and Random Forest, which provide the results in real time for the stock market.
- Utilized RMSE and MSE to assess the accuracy of the forecasting models, which reinforces the model's Accuracy by 15%.