Ayush Awasthi

+91 (989) 379 1661 | ayushawasthih@gmail.com | ayushawasthih.github.io | github.com/ayushawasthih | linkedin.com/in/ayushawasthih

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.
- Drove 11% improvement in payment processing efficiency by implementing Advanced Analytics dashboards with Apache Kafka for trend identification and optimization.
- 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*

- Engineered and validated differential control synthesis algorithms for multi-agent systems, improving control precision by 21%.
- Conducted perception and RL research on the 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 a 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%.

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 1.8 and 17, J2EE, C++, R, JQuery, LaTeX, HTML, CSS, AJAX, JSON/SOAP
Software	Linux, Git Hub, AWS, EC2, S3, Lambda, Docker, Eclipse, Redis, Kafka, Tomcat, MySQL, MongoDB, PostgreSQL
Framework and skill	Spring, Spring Boot, Hibernate, Rest API, Design Patterns, Junit, JDBC, JPA, Microservice, Oauth2, JWT
Version Control	Git, CI/CD, Gradle, Jenkins, Maven, Postman, Bitbucket
Languages	English, Hindi, Spanish
Qualities	Problem-Solving Ability, Effective Communication, 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%.