

Harshit Shrivastava

+91 79871 71303 | Gurgaon, India | [GitHub](#) | [LinkedIn](#) | harshit.shrivastava14@gmail.com

SUMMARY

Seasoned software engineer with **~9 years** of work experience developing scalable and highly available web services in the cloud. Currently working as a Software Development Engineer 3 with [Expedia Group](#).

Joined Expedia Group at their headquarters in **Seattle, Washington, US** in 2018. Took an intercompany transfer to **Gurgaon, India** in 2021 with the same department, management, and team.

Current role allows the technical ownership and responsibilities of end-to-end design, development, deployment, and maintenance of multiple tier-1 (super-critical) products and services within the payment ecosystem for Expedia Group.

Current tech-stack at Expedia Group is primarily **Java/Springboot/Spring** deployed on **AWS** but have experience with C#/ASP.NET stack as well in prior roles at **UITS Indiana University, US** and **Unisys, India**.

PROFESSIONAL EXPERIENCE

Software Dev Engineer 3 **Expedia Group** (Seattle, US / Gurgaon, India) **May 2018 – present**

- Leading the design, development, launch (continuous integration) and support of various programs and services within Expedia Global Payment (EGP)
- PayPal redesign program
 - Lead developer on [PayPal](#) redesign program to redesign customer experience on Expedia for PayPal for 3 major use cases – [Merchant of Record](#), VRBO Quote and Hold, Multi-merchant and Agency (including [Payment Facilitator model](#))
 - Project spans across multiple microservices including Payment Vault, Payment Executor, Offline Processing Service, Braintree Integrator Service, Payment Dispatcher, Checkout
 - Total yearly transactions on PayPal by Expedia exceeds **USD 1000 million dollars** in gross booking volumes
 - Responsibilities included interacting with leadership teams, product teams and vendor's technical teams on weekly basis for development review, program review and smooth rollout
- Delegated authentication program
 - Lead technical efforts on all stages of the program including vendor evaluation, identifying and grooming technical requirements and scope for Expedia to use device biometrics for login and authentication by adopting [FIDO Authentication](#) via [WebAuthn](#) and using [Mastercard Identity Check](#) Global Express Program for stronger authentication
 - Designed end-to-end flow for Expedia spanning across various departments such as Checkout, Identity and Payments
- Offline Processing Service (OPS)
 - Lead developer on program to design and develop and asynchronous payment processing service for multi-region cloud deployment on AWS
 - OPS processes about 98% of all the consumer payments for all the brands owned by Expedia Group worldwide (Expedia, Orbitz, Travelocity, Trivago, Wotif, etc) – annual processing of over **USD 100 billion dollars**
 - Developed modules to onboard [Korea Cyber Payment \(KCP\)](#) to Expedia's payment ecosystem
- Payment Authentication Service (PAS)
 - Designed and developed modules in PAS to implement [Payment Service Directive 2 \(PSD2\)](#) for [strong customer authentication \(SCA\)](#) across Expedia stack
 - Lead developer on a team of 4 engineers that designed and developed token-refresh for PAS
- MID selection service
 - Lead the authentication and authorization track for Expedia Group's NorthStar API First initiative to design and develop service to service authentication and authorization
 - Drove consensus among a wider group of engineers in EGP to adopt the same design
 - Researched and contributed to design of other components such as Failover design, Island architecture, etc.
- Payment Executor (PX)
 - Implemented asynchronous backfill from PX to finance systems for credit card and PayPal transactions which improved booking success rate and reduced latency for customers – took fragile processes out of the booking path flow and made them retrievable and fault tolerant

- Designed and developed modules in TaskExec2 to make it client agnostic facilitating seamless onboarding of new clients to schedule and run tasks at a later point in time
- Mentoring engineers within and outside the team and promoting collaboration and work satisfaction by participating in, and promoting positive team and work culture
- Managing expectations with the leadership, stakeholders and engineering teams
- *Technologies:* Java, Spring, Springboot, Docker, Splunk, AWS (Fargate, Aurora MySQL, DynamoDB, Amazon Secrets Manager, ECS, S3, EC2, Elastic Load Balancer, SQS, KMS), Terraform, CloudFormation, IAM, STS
- *Job locations:* Seattle, WA, US (May 2018 – May 2021), Gurgaon, India (May 2021 - present)

Developer **Indiana University, UITS (Bloomington, Indiana, US)** **Dec 2016 – May 2018**

- Designed and developed microservices for authentication, authorization, transactions, API, logging, billing, bulk allocation for guest cards, print functions, CS Gold API and monitoring, to serve over 130,000 clients, 10, 000 workstations and 200 servers daily. *ASP.NET Core 1.1, C#, Microservices, Message Queues, REST, Central Authentication Service, LDAP*

Engineer **Unisys, Technology Products (Bangalore, India)** **Jul 2013 – Jun 2016**

- Designed and developed a simulator for hybrid mobile apps, which formed the key feature of 'ClearPath Forward ePortal 6.1' product. *Node.js, C#, JavaScript, Visual Studio SDK, HTML5, CSS, Bootstrap*
- Created a RESTful web service to develop cross platform mobile application packages. *C#, ASP.NET, WebAPI2*
- Redesigning algorithms in web services leading to 80% improvement in performance (reduced build time of mobile apps in cloud)
- Developed, pitched and prototyped the idea of extending 'Unisys Multi-Device Application Build Service' for small and mid-sized businesses via web interface (increased revenue opportunity) and presented to company's Chief Technology Officer (CTO)
- Submitted a patent application to the organization (invention disclosure status: reviewed and accepted to be filed as patent)

EDUCATION

Indiana University, Bloomington IN **August 2016 – May 2018**

Master of Science – Computer Science – GPA: 3.7/4.0

Coursework: Artificial Intelligence, Machine Learning, Advanced Operating Systems, Mobile Computing, Data Mining, Social Media Mining, Applied Algorithms, Malware Threat and Security

Manipal University, India **August 2009 – May 2013**

Bachelor of Engineering – Computer Science and Engineering – GPA: 7.87/10

SKILLS

- *Languages and Scripting:* Java, C#, Python, JavaScript, Node.js, C/C++, PHP, HTML5, CSS, Bash
- *Frameworks, Databases, Tools, IDEs, etc:* Spring, Springboot, AWS stack (Fargate, Aurora MySQL, DynamoDB, S3, SQS, ECS, EC2, ELB, security groups, IAM Roles, STS, KMS,), .NET, HAProxy, Docker, Splunk, mybatis, log4j, logback, Slf4j, ElasticMQ, localstack, S3Proxy, Flask, React.js, jQuery, Webpack, AJAX
- *Soft-skills:* Technical management, expectation management with leadership, stakeholders, engineers, recruiting (design and technical interviews), project management (estimation, work break-downs, JIRA)

AWARDS AND RECOGNITIONS

- Nominated for EGP (Expedia Global Payments) quarterly award (Expedia, November 2019)
- Awarded 2nd prize among submissions by 150 M.S. and Ph.D. students for implementing parts of speech tagging of natural language with graphical models (December 2016)
- Quarterly Innovation Award (Unisys, period: Q3, 2015), Monthly Award (Unisys, period: Q2, 2014)
- Spot Award for 'New Product Ideas' and developing prototype implementations of the same (Unisys, December 2014)