

Parash Tinna

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2010-14 • Indian Institute of Technology, Ropar • (AIR 3654) • CGPA 7.85 (BTech)

2008-10 • XII CBSE • 86.4%

2006-08 • X CBSE • 86.4%

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EXPERIENCE (Total - 12+ years, Amazon - 10 years)

Amazon, 2022–Present — SDE-3

Designed and led development of a multi-tenant Registration & KYC platform supporting 20M+ customers across global Amazon businesses and marketplaces, also serving as a foundational high-TPS layer of PII data and statuses of end customers for various internal services with strict p99 latencies.

Defined long-term policy based tenancy strategy and design enabling multiple Amazon businesses — Sell on Amazon, Amazon Pay, AWS Marketplace, Seller Wallet, Secondary Users, Mechanical Turk— to onboard with heterogeneous and continuously evolving regulatory and compliance requirements using a user friendly UI for product/program owners.

Scaled an external product cataloging platform 25X, from 5M to 125M products/day across 250K websites, critically overcoming AWS account quotas and limits, enabling continuous crawling, unblocking S-team-level retail and AI initiatives and supporting various business initiatives like customer recognized brands head selections.

Designed a rate-aware, resilient discovery platform integrated with Meta APIs, enabling reliable ingestion and analytics of social media signals at controlled TPS for emerging brand discovery across Amazon retail.

Led two engineering teams, owning and maintaining 20+ legacy services, executing deprecation strategies and zero-impact-zero-downtime customer migrations.

Drove operational excellence within the team, reducing chronic operational load (open operational tickets 200+ → <20) and establishing durable mechanisms; recognized by the Director for outsized impact.

Interviewed 90+ candidates for tech roles across Amazon teams.

Tech Security Reviewer for Red Services (Services handling confidential++ data) in Amazon.

Amazon, 2018–2021 — SDE-2

Designed from first principles a configurable verification and claims platform, replacing legacy systems and enabling rapid adaptation to evolving global regulations; reduced verification onboarding time by 4× and improved cross-product reuse by 2×.

Architected highly available, low-latency services enabling identity and entity graph storing PII for 50M+ customers, serving a real-time dependency for KYC, risk, and screening systems across businesses and marketplaces globally.

Established a systematic experimentation framework for verification UX, enabling safe, enabling controlled global seller experiments with movable widgets and workflows enabling data-driven optimization and measurable outcomes.

Developed a self-service, configuration-driven schema agnostic ingestion system for external world product catalogs, enabling rapid ingestion from diverse sources like Shopify APIs, third-party datasets of TikTok/Instagram Shops, Temu, and offline retailers without disrupting core pipelines.

Amazon, 2016–2017 — SDE-1

Designed and delivered a modular bank account and disbursement control platform, enforcing risk, compliance, and settlement rules via high-performance APIs(including customer facing APIs) supporting micro-deposits based verification, manual investigations, and granular customer messaging.

Designed and built secure, isolated systems for global denied-party and PEP screening of encrypted PII data, supporting regulatory obligations and sustained high-TPS enabling on-demand traffic from government agencies of the world.

Developed a high-TPS low latency risk-tiered screening platform for denied parties and PEPs, supporting high TPS driven by order creation, payment instrument changes and address updates across retail Amazon.

Delivered end-to-end self-service multi-tenant appeals and unblocking platform for end customers. Onboarded by various Amazon businesses and subsidiaries.

Migrated multiple production services from Amazon's legacy private cloud to native AWS with no customer impact; authored shared libraries and SOPs for broader adoption.

Vehant Technologies, 2014-2016 — SDE-1

(An IIT Delhi Incubation)

Sole developer on a 3D under-vehicle scanning system using laser-camera setups, real-time image processing, triangulation, and feature matching to detect foreign objects beneath vehicles.

Designed and productized a 2.5D under-vehicle scanning system generating occlusion-free morphed 3D views using dual-camera geometry and real-time classification; company's flagship commercial product, operating under strict latency and throughput constraints in production environments.

Lucid Technologies, 2013-2013 — SDE-Intern

(An IIT Madras Incubation)

Delivered research and implementation for packet tracing, space partitioning, and multi-level ray tracing to optimize inspection planning in ultrasonic non-destructive testing of commercial aircrafts; Implemented in C++ using Blender, VTK, and Boost. Hence, received a pre-placement offer.

IIT Ropar

BTech Project - Developed algorithms for Intruder Detection, human motion, tracking and classification based on image processing algorithms of template matching, colour based differentiation techniques, background subtraction etc. and using hl data structures like k-d tree to optimize the speed and efficiency of the system

Achievements

Received 20+ recognitions and awards during the tenure at Amazon.

Secured CAT %ile of 99.36.

Cleared NDA and SSB until conference round in 2010

Cleared KYPY (Kishore Vaigyanik Protsahan Yojana) in XI

Cleared NTSE and NSTSE in X

Secured District Rank 2 in Gira Pratiyogita

Selected for a 3 member Google Social Team representing college at Google.

Represented the college in Inter IIT sports tournament for 3 consecutive years.

Headed Literary society(LitSoc) in IIT Ropar. Part of the core team organizing the college cultural fest - Zeitgeist

Skills

Core strengths : Platform architecture • Distributed systems • Scaling architectures • Regulatory & compliance platforms • Identity & payments • High-TPS, low-latency systems • Org-level technical leadership • Large-scale migrations • Big Data • Machine Learning

Experience in : Java, Scala, Kotlin, Python, C++, JavaScript/TypeScript, React, AWS services - (Dynamodb, S3, Lambda, Fargate, ECS, StepFunctions, SWF, Glue, EMR, SNS, SQS, Elastic Search, Notebook, CloudWatch, CloudFormation, VPC, Route53), Kafka, SNS-SQS, Docker, Kubernetes, Hudi, Parquet, Spark, MongoDB, DynamoDb, Cassandra, RDBMS, Memcached, Redis, OpenCV, VTK, Boost, Rest, RPC, GraphQL, ApiGateway, Swagger WebSockets, ALB/NLB Dagger, Spring, Guice, VPC, OAuth2, JWT, KMS, TrafficShaping, Gizmo etc.