

# HARPREET SINGH (Oxharp)

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## SUMMARY

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Full stack software engineer with 8.5+ years of experience in enterprise platform architecture, distributed systems, and full-stack development. Deep expertise in Java, Spring Boot, microservices, and cloud-native architecture (AWS). Currently building consent management platform for privacy compliance (DPDPA, India). M.Sc. in Computer Science (Blockchain) with hands-on Solana ecosystem experience, having built and won bounties for dApps using TypeScript, Next.js, and Solana program integrations. Passionate about decentralized systems, on-chain governance, and building the next generation of Web3 infrastructure.

## TECHNICAL SKILLS

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**Blockchain & Web3:** Solana, SPL Tokens, TypeScript, Next.js, Wallet Adapters, On-chain Program Integrations, Anchor (basic), Rust (basic)

**Backend & Architecture:** Java, Spring Boot, Spring Batch, Microservices, Kong API Gateway, RESTful APIs

**Cloud & DevOps:** AWS (EKS, ECR, S3, Aurora PostgreSQL), Docker, Kubernetes, CI/CD (GitLab, Azure DevOps)

**Data & Frontend:** PostgreSQL, Sybase ASE, Snowflake, Hadoop/Hive, ReactJS, Next.js, TypeScript

## PROFESSIONAL EXPERIENCE

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### Tier-1 Indian Private Bank [Confidential]

May 2025 - Present

*SDE 3, Platforms Engineering*

**DPDPA Privacy Compliance Platform** (Java, Spring Boot, AWS, Kong Gateway, Aurora PostgreSQL, Microservices)

- Architected and built an in-house Consent Management Platform and ROPA (Record of Processing Activities) system for end-to-end DPDPA regulatory compliance.
- Designed a microservices-based architecture deployed on AWS EKS with Kong API Gateway for service mesh, inter-service routing, and rate limiting.
- Built core services using Java Spring Boot including consent lifecycle management, data principal rights workflows, and processing activity registry with full audit trails.
- Defined the data model and schema design on PostgreSQL, optimizing for high-throughput consent lookups and regulatory reporting queries.
- Coordinated with Business, Legal, DPO, and Product teams to translate DPDPA regulatory requirements into platform features and data flows.
- Evaluated multiple vendor solutions for consent management before driving the decision to build in-house, leading to greater customization and cost efficiency.

### Tier-1 Indian Private Bank [Confidential]

May 2024 – Apr 2025

*SDE 2, HR Tech*

**Enterprise Onboarding Platform** (ServiceNow, Platform Integrations)

- Oversaw end-to-end design of the digital candidate onboarding journey on ServiceNow, coordinating cross-functional integrations with background verification, Oracle HRMS, gifting platforms, and identity management systems (Microsoft AD).

### Goldman Sachs Services Pvt. Ltd.

Jan 2023 - Apr 2024

*Vice President, Engineering*

**Enterprise Risk Management Framework** (Java, Spring Boot, Spring Batch, ReactJS, Sybase ASE, Reladomo)

- Foundational member and technical lead for designing the enterprise risk management framework from scratch for firmwide non-financial risk management.
- Designed and implemented tooling for managing taxonomies and inventories across Firm Activities, Business Processes, Risk and Control Taxonomies with complex inter-entity linkages.
- Built an MVP for Issues and Findings aggregation, collating IA, Regulatory, and Compliance findings into a unified data model mapped to firm risks and controls.

### Goldman Sachs Services Pvt. Ltd.

Jan 2021 - Dec 2022

*Associate, Engineering*

**Operational Risk Management Tool** (Java, Spring MVC, Spring Batch, ReactJS, Sybase ASE, Snowflake)

- Foundational member in building the Operational Risk Management Tool, replacing an existing vendor tool and migrating all historical data.
- End-to-end design and implementation of an entitlement framework managing 10+ roles across 50,000+ entities and 2,000+ users.
- Built workflows for RCSA and SOX assessment programs including Risk & Control Inventory, Assessments, Certifications, and Challenge Framework.
- Set up periodic ETL pipelines from Sybase ASE (OLTP) to Snowflake (OLAP) for firmwide risk analytics and reporting.

**Goldman Sachs Services Pvt. Ltd.**

*Jun 2017 - Dec 2020*

*Analyst, Engineering*

**Model Risk Management Tool** (*Java, Dropwizard, Angular, Sybase ASE, Hadoop, Hive, Tableau*)

- Built model lifecycle workflows including inventORIZATION, attestation, validation, annual review, and end-to-end Model Findings workflow with multi-stakeholder approval chains.
- Designed a multi-database reporting layer (Hadoop + Sybase ASE + Tableau) with drill-down analytics for model risk reporting at various granularities.

**Goldman Sachs Services Pvt. Ltd.**

*Jan 2016 - Jun 2016*

*Intern, Engineering*

**Audit Trail Framework & Email Notification Service** (*Java, Sybase ASE, Reladomo ORM, Java Reflections, SMTP*)

- Built an audit trail framework supporting unitemporal milestone to track full change history across datasets, with human-readable reports and automatic onboarding of new attributes.

## WEB3 PROJECTS & BOUNTIES

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**[OWSOps](#) | [OWS Hackathon 2026, 1st Prize \(Spend Governance Track\)](#)**

*TypeScript, React, Open Wallet Standard*

- Built a local-first operations dashboard for the Open Wallet Standard (OWS) to manage AI agent wallets, enforce spending policies, and monitor transactions in real time, without ever touching private keys. Implemented a unified policy engine registered directly in OWS for per-agent budget enforcement (daily/monthly caps), chain restrictions, and three approval modes: Auto, Veto Window (real-time WebSocket alerts), and Strict (human-in-the-loop approval). Published as an npm package (npx ows-ops) with a full dashboard including spend analytics, live activity feed, transaction playground.

**[LazorKit Cookbook](#) | [Superteam Bounty, 1st Prize](#)**

*TypeScript, Next.js, Solana, LazorKit SDK, React Native*

- Built a comprehensive 8-recipe developer cookbook for the LazorKit SDK covering passkey-based wallet creation, gasless USDC transfers, Raydium DEX swaps, Metaplex NFT minting (standard + compressed cNFTs), Marinade liquid staking, and wallet adapter integrations. Includes a React Native mobile app with deep linking and gasless transaction support, plus a subscription billing recipe with token delegation and backend automation.

**[Superteam Academy](#) | [Superteam Bounty, 3rd Prize](#)**

*TypeScript, Next.js, Supabase*

- Built a full-stack decentralized learning platform for Solana developers featuring interactive courses, in-browser code editor, gamified progression (XP, streaks, leaderboards), and on-chain credential issuance.

## EDUCATION

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**IIIT Bangalore & LJMU (Liverpool John Moores University), Online**

*2023 - 2025*

*M.Sc. Computer Science, Blockchain Specialization*

**PEC University of Technology, Chandigarh**

*2013 - 2017*

*B.Tech Computer Science, CGPA 8.85/10*

**Guru Nanak International Public School, Ludhiana**

*2012 - 2013*

*Class XII (CBSE), 96.2%*

## ADDITIONAL

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**Languages:** English, Hindi, Punjabi

**Interests:** Blockchain ecosystems, DeFi protocols, Open-source contributions, Cricket, Music, Credit card rewards enthusiast