

LAVISH KUMAR

Tech Lead | FinTech

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EXPERIENCE

Senior Software Engineer

PayPal

- 📅 Jul 2023 – Present

📍 Remote, India
- Led technical discovery for a **PIN-Debit** routing initiative, architecting a solution projected to save \$2.5M annually in network processing fees for enterprise merchants.
 - Designed transaction lookup by **idempotency key** to recover original transactions after network timeouts across charge/void and refund flows, ensuring reliable processing for enterprise partners.
 - Designed **GraphQL** APIs across the in-store stack: card-reader communication and reader fleet management (**Rust**, **AWS Lambda**) plus merchant-facing unified APIs (**Java** microservices).
 - Coordinated test-card **PAN** whitelisting across 4 services and multiple teams, unblocking partner sandbox testing in 3 days (**PCI**).

Software Engineer

Juspay

- 📅 May 2021 – Jun 2023

📍 Bengaluru, India
- Designed a **dual/hybrid DB** interface for the UPI core (**Rust**) over **DynamoDB** and **PostgreSQL** (**AWS / GCP**), letting payment apps host data in their own cloud accounts.
 - Designed and implemented a **distributed cache** for UPI services across **multi-cloud** and on-prem deployments (**Redis**).
 - Designed and implemented **UPI Number Mapper** end-to-end for **Amazon Pay**: finds any payer/payee on the UPI network from a registered mobile number (**Rust**).
 - Migrated **Google Pay's** **ICICI** PSP services (**Rust**) from bank-managed on-prem infrastructure to certified **GCP** infrastructure.

Software Engineer

Verifone India

- 📅 Oct 2018 – May 2021

📍 Bengaluru, India
- Developed the core engine (**C++**) of Verifone's unified, modular payment app for card readers, on secure **VOS** Linux via **Verifone ADK** and **Secure Data Interface (SDI)**.
 - Shipped new features on the **NAB (National Australia Bank)** payment switch at 25M+ transactions/day (**Java**, **SpringBoot**).
 - Worked on performance tuning and tech debt for the switch system alongside new feature development.

EDUCATION

B.Tech (Electrical & Electronics)

IMS Engineering College

- 📅 2011 – 2015

📍 Ghaziabad, UP

PROJECTS

In-Store Card-Present Platform

PayPal Braintree
Card-present payment infrastructure and Verifone terminal integration, EMV L3 certified across the US and UK/EU.

UPI Core Platform Features

Juspay
UPI Number Mapper, distributed cache and dual/hybrid DB layer for Google Pay and Amazon Pay, NPCI-certified at each release.

PicStax: Video Cartoonifier

Streamlit web-app that processes videos with ML/AI filters to create cartoon versions.
🐙 github.com/lavishks/picstax

TECH SKILLS

System Design	●●●●●
System Programming (Rust, C)	●●●●●
Functional (Haskell, Elixir)	●●●●●
OOPs (Java, C++, Python)	●●●●●
Card-Present (EMV, ISO 8583)	●●●●●
UPI Payment Rails (NPCI)	●●●●●
Serverless (AWS Lambda)	●●●●●
NoSQL (DynamoDB, Redis)	●●●●●
SQL	●●●●●
GraphQL	●●●●●
Spring-Boot	●●●●●
AWS	●●●●●
Problem Solving	●●●●●

INTERESTS

- Crossword Puzzles
- Exploring and discussing new technologies
- ML / AI Enthusiast