

Shubham Kumar

Associate Lead Engineer
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About

Associate Lead Software Engineer with 8+ years building scalable, high-availability backend systems for fintech and aviation. Specialized in cloud-native architecture, distributed systems, and microservices using Node.js, TypeScript, Haskell, and PureScript. Proven expertise optimizing system performance, reducing latency by 90%, and architecting mission-critical infrastructure for millions of users.

Work Experience

8+ Years

AirFi

2025 - Present

Associate Lead Engineer

Remote Consultant

- Architected mission-critical LEO (Low Earth Orbit) connectivity system, collaborating across cross-functional teams to design scalable architecture enabling real-time, high-speed in-flight internet
- Spearheaded "Next Gen" hardware bring-up, modernizing software stack while preserving core system philosophies to ensure backward compatibility and future-proof performance

AirFi

2021 - 2025

Senior Software Engineer

Remote

- Engineered high-availability backend services using Node.js and TypeScript, increasing captive portal launch success rates from 50% to over 75% for global airline passengers
- Optimized ADS-B event communication and satellite email accessibility, ensuring reliable data synchronization for offline-first embedded systems in low-connectivity environments
- Architected versatile remote sync service that streamlined content distribution across diverse aircraft platforms, significantly reducing manual deployment overhead
- Enhanced offline payment applications by integrating online verification capabilities when internet connectivity is available
- Improved email accessibility via satellite, playing pivotal role in project success

Juspay

2018 - 2021

Software Developer

Onsite

- Revamped CRED payment backend using PureScript and Haskell, achieving 90% reduction in payout latency by slashing processing time from 60 seconds to 6 seconds
- Enabled seamless credit card transactions by refactoring transaction flows and reducing processing time at all stages
- Implemented generic fulfillment system for various financial operations, ensuring streamlined and efficient processing
- Integrated complex multi-bank payout providers and Bill Payment services (HP Gas) for GooglePay, enabling seamless transaction flows for millions of active users

Juspay

2017 - 2018

Software Developer Intern

Onsite

- Engineered high-performance RESTful crypto service to handle sensitive financial data, ensuring 100% data integrity for encryption and digital signing operations

Education

The Oxford College of Engineering, Bengaluru VTU

2013 - 2017

Bachelor of Engineering, Computer Science

Skills

Tools

- Render
- Linux
- FlyIO
- GNU Bash
- MacOS
- VS Code
- TailwindCSS
- Neovim
- Google Cloud
- Git
- Kubernetes
- Digital Ocean
- Supabase
- ZSH
- Heroku
- Docker
- Netlify
- Amazon Web Services
- Elasticsearch

Framework And Runtime

- NestJS
- NextJs
- Bun
- Express
- NodeJS

Programming Language

- Purescript
- JavaScript
- TypeScript
- Haskell

Databases

- Redis
- CouchDB
- PostgreSQL
- MySQL
- MongoDB

Specializations

- Distributed Systems
- Latency Optimization
- High-Availability Architecture
- Embedded Systems

Projects

f3v3r.in

Cybersecurity blog

hexo-twitter-auto-publish

A Hexo bot to auto tweets on Twitter for the blogs published via Hexo

urlshortner

A URL Shorter service

fly_db_backup

A tool to backup and restore Postgres database hosted on fly.io to cloudflare R2

Discord Bot

A role management Discord Bot

Certifications

Cutshort Certified NodeJS (Node.js) - Basic

Cutshort

Google Cybersecurity Specialization

Google

Understanding CouchDB 3: Learn Basic & Advanced NoSQL Skills

Udemy

Cutshort Certified Algorithms - Basic

Cutshort

Tools of the Trade: Linux and SQL

Google

Bash Scripting and Shell Programming (Linux Command Line)

Udemy

**Practical Ethical
Hacking -The
Complete Course**

Udemy