# RISHI RAJ

## Experience

### Hummingbird Web Solutions | Software Development Engineer, L2

Pune, India

Tech stack: Next.js, Next Auth, React.js, Express, Redis, .NET, MySQL, Microsoft Azure

July 2024 - Present

- Rearchitectured a **full-stack application** by integrating Epicor and D3 ERP systems with **Next.js**. Optimized API interactions, reducing the number of consecutive API calls from 9 to 5 which improved page load times from **6.7** seconds to **2.4** seconds. Enhanced user experience by implementing lazy loading for resource-heavy pages and used **Redis Cache to boost performance**. Integrated **Azure-based role-based access control (RBAC)** to enable secure, department-specific logins.
- Incorporated a 3D model viewer that replaced 100+ images for product visualization with a single Blender model integrated via React Three Fiber. Reduced page size from **250 to 6 MB**, cutting backend load by approximately 98%.
- Led the development of an intranet website from scratch using Microsoft Sharepoint (SPFx), React, TypeScript and GraphQL for seamless database access, achieving 96% reduction in operational costs.
- Automated sign placement on bed material using 2D Bin Packing algorithm (EB-AFIT), achieving 92%+ bed coverage, reducing bed wastage by 40%, and saving \$3000 per month while minimizing manual effort and speeding up production.

#### Xperi | Software Development Engineer, Intern

Bangalore, India

Tech stack: React.js, Redux, Express, MongoDB, MySQL, Python

Aug 2023 - July 2024

- Innovated an cross platform automated deep link verification tool to validate links across databases and mobile apps. Reduced verification time from **3 mins to 7 seconds** and enhanced efficiency by increasing verification speed by 83%.
- Improved reliability by removing non-functional URLs, increasing app performance by 20%, and ensuring data accuracy.
- Identified and fixed over 40+ security vulnerabilities and 80+ server-related bugs, significantly enhancing system stability, optimizing performance, and ensuring robust, scalable functionality for mission-critical, and reliable service delivery.

#### Technical Skills

Programming Languages	C, C++, Python, Java, JavaScript, TypeScript, SQL, PHP, C, .NET, CSS
${\bf Technologies/Frameworks}$	Next.js, ReactJS, Three.js, NodeJS, Express, Tailwind, REST APIs, GraphQL,
Authentication/UI Tools:	JWT, OAuth 2.0, NextAuth, Zod, Zustand, Redux, ShadCn UI, Material-UI
Developer Tools/Platforms	PostgreSQL, MySQL, MongoDB, Github, Linux, Docker, Redis, Jenkins, Postman
Distributed Systems	AWS, Azure, Kaafka, Multi-tiered Architecture, Multithreading, Concurrency
Academic Coursework	Data Structures Algorithms (DSA), Database Management System (DBMS),
Object	Oriented Programming (OOP), Operating System (OS), Computer Network (CN)

#### **Projects**

Vaahan ☐ | Git ☐ | ReactJS, Redux, NodeJS, ExpressJS, MongoDB, Cloudinary, OAuth 2.0, JWT

- Developed a comprehensive fullstack vehicle rental platform allowing users to both rent vehicles and offer their vehicles for rent with customizable durations and location-based search feature for efficient vehicle discovery based on proximity.
- Integrated Stripe for secure payments, Cloudinary for efficient image storage, and OAuth for secure user authentication.
- Streamlined user experience with interactive 3D vehicle models and a responsive design using Tailwind CSS.

#### WikiWay $\square$ | ReactJS, NodeJS, ExpressJS, MongoDB

- Engineered an educational tool that challenges players to navigate between 10+ Wikipedia articles to a reach target article, up-leveled knowledge retention by 30% evidenced by assessments on "Two of These people are Lying" show.
- Integrated leaderboard and friendly challenges between users. allowing players to track their progress across levels, monitor their performance in all matches, thereby enhancing user engagement and promoting friendly competitions.

#### Achievements

LeetCode: Knight Badge holder with a 1856 rating, ranked among Top 5% of users globally. Profile

Performer of the Quarter: For ownership and delivering innovative solutions with measurable performance gains.

Hackathon:Led a team to secure Second Place in Xperi global hackathon, surpassing over 400+ teams.

Codethon: Winner of the HacknCrack Codethon 2022 ☐, securing first place in this highly competitive event.

**Academics**: Dean's List honoree, exemplifying dedication to outstanding academic excellence.

Club Activities: Organized 20+ sessions, hosted contests for the Competitive Programmers Club.

## Education