

RISHAV RAJ

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Availability: Full-Time | May 2025 – August 2025

Education

VIT Bhopal University, Madhya Pradesh

September 2022 – June 2026*

Bachelor of Technology in Computer Science

CGPA: 8.34/10

Aakash Public School, New Delhi

April 2019 – May 2021

Intermediate – 88.6%

Dwarka, New Delhi

Objective

Aspiring Technology Intern with strong backend development and cloud-native engineering experience. Passionate about emerging technologies, solving real-world business problems, and working collaboratively across diverse industries and fast-paced teams.

Projects & Experience

URL Shortener Service Project | Golang, Fiber/Echo, PostgreSQL, Redis | Personal | Dec 2024

- Developed a **high-performance** URL shortener handling **100K+ requests/day**, ensuring low-latency API responses (<50ms).
- Designed and optimized PostgreSQL schema, improving query performance by **30%** through indexing and efficient lookups.
- Integrated Redis caching, reducing database load by **60%** and achieving a **3x speedup** in URL resolution.
- Implemented rate limiting and API monitoring, preventing **95%+ of abusive traffic** and ensuring **99.99% uptime**.

Cloud-Native Serverless CI/CD Pipeline | Python (Terraform, AWS Lambda), Golang (API Backend), Docker, PostgreSQL | Personal | Feb 2025

- Built an **end-to-end CI/CD pipeline**, reducing deployment time from **1 hour to 5 minutes**, improving DevOps efficiency by **90%**.
- Designed and deployed a **containerized API backend** in Golang, supporting **10K+ concurrent users**.
- Automated infrastructure provisioning via Terraform, cutting manual cloud setup effort by **80%**.
- Enforced security best practices, reducing security vulnerabilities by **40%** through IAM role-based access controls and secret management.

JWT Authentication System | Golang, Gin, PostgreSQL | Personal | Mar 2025

- Developed a **scalable authentication system** using JWT (JSON Web Tokens), handling **100+ user requests per second**.
- Implemented **token-based authentication with cookie handling**, achieving **99.9% session reliability** and **automatic token expiration after 24 hours**.

- **Designed a secure password hashing mechanism** using bcrypt, reducing password vulnerability risks by **80%**.
 - **Built a RESTful API with Gin and PostgreSQL**, reducing authentication response time to **under 100ms**.
 - **Future Enhancements:** Planning to integrate **refresh tokens, role-based access control (RBAC), two-factor authentication (2FA), and email verification** to enhance security and scalability.
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Technical Skills

- **Programming Languages:** Python, Golang, SQL, Bash.
- **Backend Development:** RESTful APIs, Microservices, gRPC, WebSockets, API Gateway.
- **Databases & Storage:** Linux, PostgreSQL, Redis, Amazon RDS, DynamoDB.
- **Cloud & DevOps:** AWS (Lambda, EC2, S3, IAM, API Gateway, CloudWatch, RDS, ECS, EKS), Nginx.
- **CI/CD & Automation:** GitHub Actions, Jenkins, ArgoCD, Terraform, AWS CloudFormation.
- **Databases:** MySQL, PostgreSQL.
- **Networking & Security:** DNS, TCP/IP, OAuth2, JWT, TLS/SSL, IAM, VPC, Load Balancing, Reverse Proxy.
- **Message Queues & Event-Driven Systems:** Kafka, RabbitMQ, AWS SQS, SNS.
- **System Design & Optimization:** High Availability (HA), Load Balancing, Caching Strategies, Scalability Patterns

Achievements & Certifications

- Top 20 Finalist in **Innovate You Techathon** (out of 250+ teams).
- Certifications in **AI/ML (3), Data Engineering (2), Cloud Engineering (2)** from Udemy and Coursera.
- Solved **250+ LeetCode problems**; earned 7 badges; ranked Top 40% in contests.
- **Gold Badges** in Python and SQL on HackerRank.
- **Leadership:** Led a team of 8 students to organize and manage a technical event attended by 100+ participants — coordinated logistics, marketing, and technical activities