## Resume Improvement and Learning Roadmap for Amrutanshu Mishra

## **Core Learning Areas to Add**

#### 1. System Design:

- Learn: Microservices, Load balancing, Caching (Redis), Event-driven design, Pub/Sub (Kafka).
- Resume Add: Designed scalable messaging system with Redis caching and rate-limited APIs.

#### 2. Cloud Technologies & DevOps:

- Learn: AWS (EC2, S3, Lambda), GitHub Actions, Docker, CI/CD pipelines, Kubernetes basics.
- Resume Add: Deployed Dockerized app using CI/CD pipelines on AWS EC2.

## 3. Testing and Code Quality:

- Learn: Unit testing with Jest, PyTest, Integration testing, Linting.
- Resume Add: 85% unit test coverage using Jest with automated CI integration.

## 4. Security Practices:

- Learn: OWASP Top 10, CSRF, XSS, Helmet.js, HTTPS, input validation.
- Resume Add: Secured APIs against OWASP vulnerabilities with CORS headers and JWT expiration.

#### 5. Advanced Databases:

- Learn: Indexing, aggregation pipeline, query optimization, transactions.
- Resume Add: Improved MongoDB performance by 60% using indexes and aggregations.

#### 6. Frontend Engineering:

- Learn: SSR, SSG in Next.js, Redux Toolkit, Zustand, performance auditing with Lighthouse.
- Resume Add: Reduced frontend load time by 45% with SSR and dynamic imports.

## **Experience to Target**

- Internships: Remote/on-site backend or full-stack internships.
- Open Source: GSoC, MLH, Hacktoberfest.

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- Freelance: Upwork, Fiverr, Codementor for small client work.
- Research: Reach out to NITR or IIT professors.
- Blogging: Share knowledge on Medium, Dev.to, or Hashnode.

## **Knowledge to Pursue**

- Advanced DSA: Segment Trees, Mo's Algorithm, Tree DP.
- System Programming: OS internals, process/thread models, memory.
- Machine Learning (optional): Scikit-learn, LLM APIs, Pandas.

#### **Certifications and Proof of Skills**

- AWS Cloud Practitioner
- Docker Essentials (IBM)
- GitHub Actions CI/CD pipeline course
- Grokking System Design Interview
- PortSwigger Web Security Academy

#### **New Resume Sections to Add**

- Certifications: AWS Certified (Jul 2025)
- Experience: Backend Intern Built RESTful APIs at XYZ Startup
- Projects: Docker + AWS-hosted full-stack app
- Open Source: Contributed to Postwoman/Hoppscotch
- Portfolio: amrutanshu.hashnode.dev or GitHub Pages

## **Final Learning Path Summary**

Technical Skills to Learn:

# Resume Improvement and Learning Roadmap for Amrutanshu Mishra

- System Design, Cloud/DevOps, Testing, Security, Performance

# Strategic Additions:

- Internship or open source work
- At least one cloud or DevOps certification
- Personal blog/portfolio website