

# Bhavya Kandhari

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## Education

**Arizona State University** – MS in Computer Science, GPA: 3.93/4.00

August 2023 – May 2025

**Amity University Noida** – BTech in Computer Science, GPA: 8.17/10

August 2017 – May 2021

## Skills Summary

**Languages:** Rust, JavaScript, TypeScript, Golang, Python, SQL

**Frameworks & Libraries:** HTML, CSS, React.js, Next.js, TailwindCSS, Node.js, Express.js, FastAPI, Axum, Dioxus

**Cloud & DevOps:** AWS, Docker, Kubernetes, Git/GitHub, Linux, GitHub Actions, Prometheus, Grafana

**Databases & Tools:** PostgreSQL, MySQL, BoltDB, Redis, Power BI, Tableau, AWS QuickSight

**Skills:** Agile, Version Control, Microservices, Distributed Systems, Scalability, Fault Tolerance, Observability

## Experience

**Software Engineer**, Ira A Fulton Schools of Engineering – Tempe, AZ

June 2024 – April 2025

- Engineered Python and C# automation tools to streamline evaluation of 400+ distributed computing projects per semester, improving workflow efficiency and system reliability.
- Designed Pytest-based validation pipelines to test correctness, runtime performance, and edge-case resilience across 200+ submissions, enabling scalable quality assurance and fault-tolerant execution.
- Led debugging workshops and architecture walkthroughs on RESTful APIs and distributed systems, emphasizing scalability, system design, observability, and best practices in cloud-native backend development.

**Associate Software Engineer**, Ernst & Young (EY), GDS – Kolkata, India

September 2021 – July 2023

- Accelerated daily IP enrichment by orchestrating AWS Redshift, Glue, Lambda, and Secrets Manager, optimizing data pipelines and reducing processing latency by 1.5 hours.
- Improved anomaly detection accuracy by 20% by architecting distributed time-series models for secure, real-time monitoring of irregular network activity.
- Engineered large-scale, fault-tolerant ETL pipelines on AWS Glue for 50M+ daily records and developed QuickSight dashboards for high-availability monitoring.
- Deployed scalable NLP clustering models using PySpark and K-Means to organize 10M+ security records, enhancing automation and data-driven threat intelligence.
- Established automated CI/CD pipelines integrating NVD and CAPEC databases, correlating 65% of CVEs to MITRE ATT&CK, strengthening enterprise threat detection capabilities.

## Projects

**URL Shortener Webapp**

<https://hash-ly.vercel.app/>

- Built full-stack web app with Next.js 15, TypeScript, and Turso, exposing REST APIs on edge infrastructure.
- Secured app with IP hashing, Upstash Redis rate limiting, SSRF protection, 30-day retention and analytics.
- Deployed on Vercel with CI/CD workflows, consolidating microservices into a unified Next.js edge architecture.

**Metered API Server**

[github.com/bkandh30/metered-api-server](https://github.com/bkandh30/metered-api-server)

- Built a secure Rust API server with Warp, Tokio, SQLx, API key management, and PostgreSQL usage tracking.
- Implemented quotas, logging, and rate limiting; deployed via Docker Compose for scalable microservices.
- Applied best practices: structured logging, health checks, endpoint metrics, and CI/CD with GitHub Actions.

**GoFlix - RESTful Movie API**

[github.com/bkandh30/GoFlix](https://github.com/bkandh30/GoFlix)

- Architected Golang REST API with JWT auth; supported 100+ concurrent users with high availability.
- Integrated PostgreSQL, database migrations, secure password storage, error handling, and graceful shutdown.
- Implemented CORS, structured logging, background workers, and metrics for observability at /debug/vars.