

# Bhavya Kandhari

[Email](#) | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

## EDUCATION

### Arizona State University

*Masters in Computer Science CGPA: 3.93/4*

Tempe, Arizona

Aug 2023 - May 2025

### Amity University

*Bachelor of Technology in Computer Science CGPA: 8.17/10*

India

Aug 2017 - May 2021

## EXPERIENCE

### Associate Software Engineer

*Ernst & Young, Global Delivery Services*

Sep 2021 - July 2023

India

- Collaborated with cross-functional teams to define and standardize cybersecurity KPIs, improving metric clarity and reporting quality across **6** departments.
- Designed and deployed anomaly detection models using time-series analysis to improve incident investigation efficiency by **20%**.
- Automated IP enrichment workflows using **AWS Redshift**, **AWS Glue**, **AWS Lambda**, and **Secrets Manager**, reducing manual processing time by **1.5** hours/day.
- Built scalable ETL pipelines with **AWS Glue** and developed data profiling dashboards using **AWS QuickSight** to monitor data quality and distribution.
- Integrated **NVD** and **CAPEC** databases to map over **65%** of CVEs to **MITRE ATT&CK framework**, enhancing threat intelligence coverage.

## TECHNICAL PROJECTS

### Async Text Summarization Microservice | [GitHub](#) | *FastAPI, Docker, NLTK*

Apr 2025 - Apr 2025

- Developed a containerized (Docker/Compose) asynchronous RESTful API using **Python**, **FastAPI**, **Pydantic**, and **Tortoise ORM** for text summarization.
- Implemented CRUD, **PostgreSQL** persistence (Asyncpg) with **Aerich** migrations, and integrated **newspaper3k/NLTK** for article processing/summarization.
- Ensured code reliability via TDD with **Pytest** (unit/integration, **pytest-cov**, **pytest-xdist**), linting (**Flake8**), and formatting (**Black/isort**).

### Git Implementation | [GitHub](#) | *Python*

Mar 2025 - Mar 2025

- Recreated core **Git** operations (**init**, **commit**, **tree**, **blob**) using **SHA-1 hashing** and **zlib compression** for content addressing.
- Designed an object model to manage **Git internals** and built local repository functionality from scratch.
- Implemented **HTTP remote cloning**, including **ref fetching**, **packfile parsing**, and **delta resolution** for efficient file storage.

### Video Reconstruction from Randomized Frames | [GitHub](#) | *OpenCV, Numpy*

Nov 2023 - Dec 2023

- Applied and compared **ORB** and **SURF** feature detectors to extract keypoints from randomized frames, selecting **ORB** based on computational efficiency and descriptor quality.
- Implemented three sorting strategies — **Growth-based**, **Hierarchical Clustering**, and a **TSP-inspired approach** — to reorder frames based on visual similarity, achieving improved temporal reconstruction.
- Developed and benchmarked sequencing accuracy using both the original **Logistic Loss Metric** and a custom **Sequential Order Error**, validating improvements over baseline methods.

## TECHNICAL SKILLS

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

**Frameworks/Libraries:** React, Node.js, Express, FastAPI, Next.js, TailwindCSS

**Databases:** PostgreSQL, MongoDB

**BI Tools:** Power BI, AWS Quicksight, Tableau

**Cloud & DevOps:** AWS, Docker, Git/GitHub, Prometheus, Grafana, NGINX

**Data Processing:** Apache Flink, Spark, Kafka

**Testing:** PyTest, Cypress