Bhavya Kandhari

Email | LinkedIn | GitHub | Portfolio

EDUCATION

Arizona State University

Tempe, Arizona

Masters in Computer Science CGPA: 3.92/4

Aug 2023 - May 2025

Amity University India

Bachelor of Technology in Computer Science CGPA: 8.17/10

Aug 2017 - May 2021

EXPERIENCE

Technology Consultant (Data Analyst)

Sep 2021 - July 2023

Ernst & Young, Global Delivery Services

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

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