Bhavya Kandhari

Full Time | bhavya.kandhari.eng@gmail.com | https://www.linkedin.com/in/kandharibhavya/ |
github.com/bkandh30 | https://bhavyakandhari.vercel.app/

Education

Arizona State University Tempe,Arizona
Masters in Computer Science CGPA: 3.93/4 *August 2023 - May 2025*

Amity University India
Bachelor of Technology in Computer Science CGPA: 8.17/10 *August 2017 - May 2021*

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
Testing: PyTest, Cypress

Experience

Associate Software Engineer September 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 created 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* April 2025 - April 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* March 2025 - March 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.
- Integrated **HTTP remote cloning**, including **ref fetching**, **packfile parsing**, and **delta resolution** for efficient file storage.

Video Reconstruction of Random Frames | GitHub | *OpenCV, Numpy* November 2023 - December 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.