

# Bhavya Kandhari

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

## EDUCATION

### Arizona State University

Master's in Computer Science CGPA: 3.92/4

Tempe, Arizona

Aug 2023 - May 2025

### Amity University

Bachelor of Technology in Computer Science CGPA: 8.17/10

India

Aug 2017 - May 2021

## EXPERIENCE

### 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 per 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 ATTACK framework, enhancing threat intelligence coverage.

## TECHNICAL PROJECTS

### 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.

### Simplified Alignment in LLMs | [GitHub](#) | *Trl, Transformers, Torch*

Aug 2024 - Dec 2024

- Fine-tuned LLaMA models using Direct Preference Optimization (DPO) with the ELI5 dataset for long-form QA tasks.
- Preprocessed and structured question-answer pairs by formatting prompts and responses to emphasize coherence, informativeness, and conversational tone for training stability.
- Evaluated the model's reasoning and generalization using GSM8K and MMLU benchmarks, achieving a 6% increase in reasoning accuracy and improved output alignment quality.

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

Nov 2023 - Dec 2023

- Applied and compared ORB and SURF feature detection algorithms to match keypoints between randomized frames, enabling reconstruction of original video sequences.
- Implemented 3 sorting algorithms to reorder frames based on feature similarity, achieving significant improvements in sequencing accuracy over baseline methods.
- Developed evaluation metrics to quantify sequencing accuracy and validated improvements over baseline approaches.

## 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