AYESHA TARANUM

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Master of Computer Applications
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Siksha 'O' Anusandhan, Bhubaneswar

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EDUCATION

•Master of Computer Application (MCA) — *2023-25*

Institute of Technical Education and Research, SOA deemed to be university, Bhubaneswar — CGPA: 8.27

•Bachelor of Science in Chemistry — *2019-22*

P.P College, Nischintakoili, Utkal University, Bhubaneswar — CGPA: 8.76

PROJECTS

Bias Detection & Explainability Audit Tool — *June 2025 – Present*

Python-based ML assessment tool to detect bias and explain model behavior using SHAP.

- Tools/Frameworks Used: Python, scikit-learn, pandas, SHAP, matplotlib.
- Built an assessment tool to evaluate ML models for fairness across demographic attributes.
- Used SHAP to generate global and local explanations of model predictions.
- Calculated fairness metrics (Statistical Parity, Equal Opportunity) to identify bias.
- Created a "Model Card" to document risks, model usage, and mitigation strategies.

Attendance Query & Support Ticketing System — *Jul 2024 – Aug 2024*

Java/MySQL portal to log, manage, escalate, and resolve attendance queries

- Triage and categorize 250+ end-user queries via web and email, using ticketing processes.
- Monitored SLA (24 hr response), improving first-time resolution rate by 30
- Logged incidents and escalated unresolved issues per ITIL incident lifecycle.
- Automated email alerts and communicated status updates to users.

Fairness-Aware ML Pipeline Simulator — *April 2025 – May 2025*

End-to-end ML workflow demonstrating bias mitigation and ethical model documentation.

- Tools/Frameworks Used: Python, Fairlearn, TensorFlow, Streamlit, Git.
- Created a reproducible ML pipeline integrating Fairlearn for mitigation (reweighing, thresholding).
- Visualized metrics (TPR, FPR) across subgroups to detect performance disparity.
- Generated dashboards using Streamlit for monitoring fairness indicators.
- Documented the process using "Data Sheets for Datasets" and ethical AI audit logs.

SKILLS AND INTERESTS

Languages & Libraries: Python, Java, scikit-learn, TensorFlow, Fairlearn, SHAP, LIME, pandas, NumPy
ML & Ethics Tools: Model evaluation, bias detection, explainability (XAI), model cards, data sheets
Backend & APIs: Spring Boot, RESTful APIs, Hibernate, MySQL
Dev Tools & Versioning: Git, Postman, Jupyter, Streamlit, VS Code
Documentation & Governance: Responsible AI workflows, risk documentation, fairness reports
Soft Skills: Ethical reasoning, communication, attention to detail, analytical thinking, reporting

CERTIFICATES

– **Learn Java Programming - Beginner to Master by Abdul Bari, Udemy**
– **Data Structures and Algorithms Complete Course (C++ & Java)**
– **Post Graduate Diploma in Computer Applications (PGDCA)**

ACHIEVEMENTS

- I secured the 77th rank on GeeksforGeeks, ranking among the top 7% performers at Siksha 'O' Anusandhan University.
- Earned multiple district-level accolades as an accomplished debater and extempore speaker, participating in 15+ competitions across school and college.
- Built and deployed 3+ full-stack web applications with real-world use cases, showcasing end-to-end software development capability.

EXTRACURRICULAR ACTIVITY

– **Dancing and Reading Newspaper**