

AADVIK CHATURVEDI

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EDUCATION

B.Tech(Computer Engineering)	2024-2028	Delhi Technological University, New Delhi	CGPA: 9.40
AISSCE/CBSE (Class XII)	2024	Sant Gyaneshwar Model School, New Delhi	89%
AISCE/CBSE (Class X)	2022	Delhi Public School, Indirapuram, Ghaziabad	95.5 %

ACADEMIC PROJECTS

AR T-Shirt Overlay – Web App | [Link](#) | Flask | OpenCV | MediaPipe | Bootstrap | Jinja2

- Maintained less than 50ms end-to-end latency via **asynchronous task queuing** in Python/Flask and utilizing **OpenCV's optimized matrix operations** for the alignment algorithm.
- **Integrated** MediaPipe and OpenCV to achieve **92% garment alignment accuracy across varied poses, enhancing** user interaction.

Tennis Prediction Model | [Link](#) | XGBoost | Scikit-learn | NumPy | Pandas

- **Designed and optimized** a predictive ML model (XGBoost), achieving **78% accuracy, 0.74 F1-score, and 0.81 ROC-AUC** on tennis match outcomes.
- Engineered **25+ domain-specific features (e.g., Elo rating variance, surface-adjusted H2H)** and implemented a **CI/CD pipeline** for daily model re-training and evaluation, achieving **0.81 ROC-AUC.**"

VajraAI-AI-Powered Public Spending Anomaly Detection | [Link](#) | React | NodeJS | PyTorch | FastAPI

- Scaled an unsupervised Transformer-based anomaly detection system to analyze 100K+ public-spending records per run, achieving **0.81 ROC-AUC and 29–35% fewer false positives versus rule-only and statistical baselines.**
- **Improved investigation efficiency by ~40%** by ranking entities via composite risk scores (ML + graph features), achieving **0.76 precision@top-10%** and reducing manual review time per case.

MapLY – ML-Driven Safety-Aware Navigation System | [Link](#) | Python | ML | Graph Algorithms | Geospatial Data

- Developed a **dynamic safety scoring model** that fuses real-world crime statistics, environmental features (lighting density, isolation, time-of-day), and user feedback, producing segment-level risk scores with **0.79 ROC-AUC** for high-risk area identification.
- Integrated learned safety scores into a **graph-based routing pipeline**, re-weighting edges to optimize for safety-aware paths and reducing traversal through high-risk segments by **~38%** compared to shortest-path baselines.
- Optimized inference and route recomputation to run in **<200 ms per query** under low-bandwidth constraints, enabling real-time, ML-assisted navigation with **≤12% average route-length overhead.**

ACADEMIC ACHIEVEMENTS AND AWARDS

- **Finalist among 100+ teams at brAIwave Hackathon (DTU)**
- Ranked **4,721 / 13,776 globally** in Meta Hacker Cup 2025 (Human Track) Round-1, a **three-hour algorithmic programming challenge**
- Ranked **2893 / 13,776 globally** in Meta Hacker Cup 2025 (Human Track) Round-2, a **three-hour algorithmic programming challenge :**
- *Completed **Machine Learning Specialization (DeepLearning.AI)** under instructor Andrew Ng:*
[Coursera Verified Certificate](#)

TECHNICAL SKILLS

Programming Languages: C++, Python, JavaScript, HTML5, CSS3

Frameworks & Libraries: React.js, TensorFlow, PyTorch, Scikit-Learn, FastAPI

Data Science & Machine Learning: NumPy, Pandas, Matplotlib, Seaborn

Developer Tools & Platforms: Git, VS Code, Vim, Jira