ATHARVA YEOLA

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EDUCATION

University of California San Diego (UCSD)

September 2023 – Present

San Diego, USA

Master of Science (M.S) – Machine Learning & Data Science

Pune Institute of Computer Technology (PICT)

July 2019 – June 2023

Bachelor of Engineering (B.E.) – Electronics & Telecommunication

Pune, India

WORK EXPERIENCE

Data Scientist July 2024 – Present

Qualcomm Institute - UC San Diego Division of Calit2

San Diego, USA

- Spearheaded the **causal analysis** of U.S. sports betting's impact on gambling addiction via **synthetic control** and time series forecasting; quantifying a 23% nationwide increase in addiction.
- Engineered 'Waldo', an open-source NLP tool by **fine-tuning** the **RoBERTa LLM** on 360,000+ Reddit posts to detect Adverse Events with **99.7% accuracy**, surpassing GPT-3.5 Turbo by 57% in F1-score.

Research Intern - Computer Vision

December 2022 – August 2023

Indian Institute of Technology (IIT) Patna

Remote

- Created a **synthetic dataset** using image augmentation, expanding training data to approximately 100,000 images (**30% increase**), improving model robustness to detect occluded traffic signs in autonomous vehicles.
- Achieved **85.3**% accuracy using an ensemble model (ViT + EfficientNet) by tackling edge-case scenarios in adverse conditions, **outperforming the state-of-the-art** F1 score by 9%.

Data Scientist - Recommender Systems

August 2022 – April 2023

RhythmFlows Solutions Pvt. Ltd

Pune, India

- Led **A/B testing** of a hybrid music recommendation system; proposed model (treatment) resulted in a **33% higher** click-through rate (CTR), **20% longer** session duration, and a **25% increase in app adoption** among target users.
- **Deployed** the recommendation system into the live application using **AWS Sagemaker** with continuous updates for improved performance, collaborating cross-functionally to ensure seamless integration and scalability.

Data Scientist - Product

January 2022 - June 2022

Atomic Loops

Pune, India

- **Spearheaded a team of three** in building a YOLOv5-based real-time object detection model for an automated food delivery conveyor belt, achieving **98**% detection precision and **increasing customer footfall by 30**%.
- Collaborated with the hardware engineering team to synchronize the belt's speed with the model's processing time using Raspberry Pi, reducing false negatives by 15%; later reused for inventory tracking, reducing food waste by 20%.

PUBLICATIONS & CONTRIBUTIONS

- **Authored** an <u>original investigation</u> in JAMA Internal Medicine (acceptance rate-4%) on gambling addiction trends post the legalization of U.S. sports betting.
- Led and **Authored** a research study in IEEE Xplore (CVMI 2024) on occluded traffic sign detection.
- Co-developed HIVTrends.org, an interactive public health analytics platform for monitoring HIV test sales.

PROJECTS

End-to-End Text Summarizer | *② Transformers, NLP, GitHub Actions*

July 2024 – July 2024

- Built a text summarizer for concise summaries, managing the entire workflow from configuration to deployment.
- Automated CI/CD with AWS and GitHub Actions, handling Docker, EC2, ECR, and runner setup.

Retail Vision Enhancement | @ YOLOv8, SuperGlue, Docker

February 2024 – February 2024

- Implemented YOLOv8 for object detection, achieving over 90% accuracy in labeling on-shelf retail products.
- Introduced SuperGlue for precise product identification, and created a Dockerfile to ensure cross-platform replicability.

TECHNICAL SKILLS

Programming & Big Data – SQL (MySQL/PostgreSQL), Python, R, ETL, MongoDB, Spark, BigQuery, Hadoop Statistical Experimentation – A/B Testing, Synthetic Control, Difference-in-Difference (DiD) Machine Learning & Modeling – LLMs, Fine-tuning, Time Series Forecasting, Recommender Systems Statistics & Visualization – Probability, Inferential & Descriptive Stats, Tableau, Power BI, Matplotlib, Seaborn Cloud & Deployment – AWS (Sagemaker, EC2, ECR), Google Cloud, Docker, GitHub Actions, CI/CD