

ATHARVA PARIKH

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EDUCATION

Purdue University, West Lafayette, IN, USA

GPA 3.85 / 4 | August 2023 – May 2025

Master of Science, Statistics and Computer Science

Courses: Design of Experiments, Stat Methods, Algorithms, Stat Inference, Databases, Data Mining, Statistical Machine Learning

Pune University, Pune, India

(Gold medalist) GPA 4 / 4 | August 2019 – May 2023

Bachelors in Computer Science

Achievements: SIH 2022 Winner (Top 1% / 20,000 teams nationwide) | Techgium Hackathon Finalist (Top 12 / 7,000 teams)

EXPERIENCE

AI and Product Strategy (Co-Founder, CPO)

BrainGnosis

West Lafayette, IN, USA

Jan 2025 – Present

- Created an LLM Agent framework - SciBorg to rapidly deploy MultiAgent systems for organizations, with features like Modularity, advanced benchmarking, Finite State Automata (FSA), and dynamic memory for Agent to Agent communication.
- Managing \$600K+ worth of AI contracts with leading tech and research companies.
- Spearheading the development of an AI operating system for enhanced process efficiency in enterprises.

AI and Software Developer

Purdue University

West Lafayette, IN, USA

Jan 2024 – Present

- Developed AI-powered healthcare assistants for Cleveland Clinic using LangChain and time-series models (LSTM, TimeVAE, Online Learning) to predict brain hemorrhage risks with 97% accuracy, enabling early intervention.
- Built advanced RAG automation pipeline for personalized medical insights and automated alert systems.
- Built pluggable AI tools, such as automated PubChem integration for chemical information access and instrument drivers for controlling and running chemical instruments in AI-driven smart labs.
- Co-authoring research papers on AI applications in healthcare and scientific research, in collaboration with the NIH

Machine Learning Engineer

Cook Medical

Bloomington, IN, USA

Jun 2024 – Aug 2024

- Engineered a “Complaints Forecasting” model using Azure ML pipelines, achieving an R^2 score of 0.92 to accurately predict priority products for quality checks and hence minimize the losses.
- Developed “CookGPT” leveraging Azure AI (Search Service, Datalake, OpenAI API) to implement an advanced search and retrieval (RAG) system within Cook Medical’s internal knowledge base, drastically reducing the search time by 85%, averaging to 3 minutes.
- Led data mining & cloud automation strategies, building real-time monitoring dashboards in Power BI.

Software Developer (ML)

Labellerr

Chandigarh, India

Jan 2023 – May 2023

- Implemented CLIP, DinoV2, and Yolov8 for a domain-specific automated dataset labeling system, increasing annotation speed by 82%.
- Deployed semi-supervised learning to reduce manual annotation efforts for large-scale datasets. Wrote technical blogs and took sessions.

PROJECTS

Medical Visual Question Answering | Purdue

- Designed and implemented a multimodal medical question-answering system leveraging vision-language models (ViT, BERT, BLIP) to enhance clinical decision support, achieving 83.48% accuracy on closed-ended queries and 60% on open-ended ones.
- Conducted extensive model experimentation and evaluation, comparing CNN-LSTM, BERT-DenseNet, and BLIP architectures, leading to improved performance in both structured and descriptive medical queries.

AbbVie: Marketing Investment Analytics | The Data Mine Purdue < [Video](#) >

- Engineered multi-touch sequence-based attribution models using XGBoost with SHAP values for interpretability, optimizing marketing spend and maximizing ROI for pharmaceutical campaigns. Deployed a Streamlit app for real-time analysis.

Few-shot Defect Classification in Manufacturing Setup (PoC) | Techgium (L&T Technology Services) < [Video](#) >

- Built a scalable defect detection and classification solution using SWIN Transformer and Siamese networks with 96% accuracy for manufacturing, integrating few-shot learning for new products. Deployed on TensorRT supporting online learning.

AutoFis: Automatic fish detection and recognition | Smart India Hackathon 2022 – Winning solution < [Link](#) >

- Innovated an end-to-end system to classify fish species with over 93% accuracy with the help of a one-shot learning-based classifier by harnessing the SWIN transformer. Designed the UX of the application and overlooked product development.
- Deployed a two-step model: an on-device TFLite model filtered non-fish images, reducing server load, while a high-accuracy TensorFlow model processed relevant images, cutting costs and preventing bottlenecks.

SKILLS

Programming & Scripting: Python, R, SQL, Shell | **Frameworks:** TensorFlow, PyTorch, scikit-learn, LangChain, FastAI, MLflow

Cloud & DevOps: Azure, GCP, Docker, Git, Linux | **Software Dev:** Flask, Django, FastAPI, REST APIs, ONNX, TensorRT, JSON

Data Analysis & Visualization: Power BI, Tableau, Matplotlib, Seaborn, ggplot2, Pandas, SQL, A/B Testing, Experiment Design

AI/ML Techniques: NLP, Time Series Analysis, Computer Vision, LLMs, Multi-touch Attribution, Anomaly Detection, RAG, MLOps

Others: Teamwork, Leadership, CI/CD Pipelines, Data Engineering, Prompt Engineering, Technical Writing, Cross-functional Collaboration