

# ABHAV VOHRA

(347) 416-7797   voh.abhav@gmail.com   github.com/abhavvohra   linkedin.com/in/abhavvohra   abhavvohra.github.io  
Brooklyn, NY

## EDUCATION

**M.S. in Computer Engineering**, New York University Sept 2022 – Dec 2024  
*Relevant Coursework: Data Structures, Deep Learning, Reinforcement Learning, Advanced ML,* GPA: 3.67/4.0  
*Large Language Models, Natural Language Processing, Probability & Stochastic Processes*  
**B.Tech in Electronics and Communication Engineering**, GGSIPU Delhi, India Aug 2017 – June 2021

## WORK EXPERIENCE

**AI Systems Engineer**, Easley Dunn Productions, Inc. (Remote, US) June 2025 - Present  
• Developed multi-agent deep reinforcement learning system for Monster Gridiron, a Unity-based American football game, implementing PPO (Proximal Policy Optimization) networks with Unity ML-Agents to enable intelligent offensive team control.  
• Implemented self-play training architecture enabling agents to learn coordinated offensive strategies through iterative competition against defensive opponents.

**AI Engineer (Intern)**, Treevah LLC (Remote, US) Feb 2025 - May 2025  
• Developed an intelligent file organization system leveraging OpenAI GPT-4o and LangGraph to create an automated workflow that analyzes uploaded text documents, extracts semantic content, and categorizes files based on content similarity.  
• Implemented human-in-the-loop validation with user confirmation prompts before file transfers to ensure accuracy and user control.

**ML Engineer**, Vitalth Forgers Pvt. Ltd. (New Delhi, India) May 2022 - Aug 2022  
• Developed influenza detection system using fine-tuned transformer models on vital sign time-series data (temperature, Pulse, Respiratory Rate, SpO2), achieving 88% accuracy.  
• Implemented an LSTM network for influenza classification, processing sequential vital sign data to distinguish flu from other respiratory conditions with 18% reduction in false positives.

**Software Engineer**, Antriksh Labs Pvt. Ltd. (Remote, India) June 2020 - Dec 2021  
• Developed end-to-end anomaly detection pipeline using scikit-learn, and unsupervised learning to analyze sensor data from robotics equipment, predicting failures with 85% accuracy and optimizing maintenance schedules.  
• Built time-series forecasting models with PyTorch for multi-sensor IoT data streams, creating real-time dashboards that achieved 30% reduction in unplanned downtime across robotics automation systems.

## PROJECTS

**Arxiv Research Agent**  
• Developed an automated academic research system using LangGraph's multi-agent architecture, integrating ArXiv API with StateGraph orchestration to streamline scholarly paper retrieval, analysis, and synthesis for researchers and academics.  
• Built comprehensive workflow that leverages reflection agents for iterative improvement, vector database integration for semantic search, and structured report generation with proper citations to enhance research productivity and accuracy.

**Multi-Agent Technical Documentation RAG System**  
• Built a technical documentation assistant using AI agents (API, code generation, troubleshooting), processing open-source codebases with query routing and parallel execution to provide comprehensive developer solutions.  
• Deployed FastAPI service with ChromaDB vector database, semantic chunking strategies, and confidence scoring systems for multi-domain knowledge synthesis.

## TECHNICAL SKILLS

<b>Programming Languages:</b>	Python , SQL , C, C++, C#
<b>ML/AI Frameworks:</b>	PyTorch , Scikit-learn, Hugging Face Transformers, SpaCy, XGBoost, OpenCV
<b>AI/LLM Engineering:</b>	LangChain, LangGraph, LlamaIndex, CrewAI, Neo4j, RAG Systems, Graph RAG
<b>MLOps &amp; Development:</b>	MLflow, Weights & Biases, Gradio, FastAPI, Docker, Kubernetes, Jupyter, PySpark, AWS (SageMaker, EC2), Git, CI/CD (Jenkins/GitHub Actions), Airflow
<b>Deep Learning &amp; Architecture:</b>	Transformers, Attention Mechanisms, Natural Language Processing (NLP), CNNs, GANs, VAEs, Diffusion Models, Graph Neural Networks, Multi-modal Models, Large Language Models (LLMs), RAGs, Prompt Engineering