

MUHAMMAD FAAHEM

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PROFESSIONAL SUMMARY

Passionate Full Stack AI Engineer with proven expertise in machine learning, deep learning, and modern web development. Currently pursuing undergraduate studies at FAST-NUCES while building production-grade AI solutions. Demonstrated proficiency in developing end-to-end AI systems—from model training and fine-tuning to deployment at scale. Strong foundation in computer science fundamentals, algorithms, and software engineering best practices. Self-employed with hands-on experience delivering practical AI applications across computer vision, NLP, and financial analytics domains.

EDUCATION

Bachelor of Science in Computer Science

FAST National University of Computer and Emerging Sciences (NUCES)

Expected Graduation: 2030 | GPA: 3.8/4.0

TECHNICAL SKILLS

Artificial Intelligence & Machine Learning

- Deep Learning Frameworks: TensorFlow, PyTorch, Keras, Scikit-learn
- AI Specializations: Natural Language Processing (NLP), Computer Vision, Neural Networks
- AI/ML Operations: Model Training, Fine-tuning, Deployment (Hugging Face, LangChain), Large Language Models (LLMs), Prompt Engineering, RAG Systems

Full Stack Development

- Frontend Technologies: React.js, Next.js, TypeScript, HTML5, CSS3, Tailwind CSS
- Backend Technologies: Node.js, Express.js, FastAPI, Flask, Django
- Database Systems: PostgreSQL, MongoDB, Redis, Vector Databases (Pinecone, Chroma)
- API Development: RESTful API design, GraphQL, WebSocket protocols

DevOps & Cloud Infrastructure

- Version Control: Git, GitHub, GitLab
- Cloud Platforms: Amazon Web Services (AWS), Google Cloud Platform (GCP), Microsoft Azure
- Containerization & Orchestration: Docker, Kubernetes
- CI/CD Pipelines: GitHub Actions, Jenkins

KEY PROJECTS

VisionGuard | AI-Powered Computer Vision Security System

github.com/human-12/visionguard

- Engineered an intelligent surveillance system leveraging state-of-the-art computer vision models for real-time object detection, facial recognition, and anomaly detection
- Implemented deep learning architectures (YOLO, ResNet) using PyTorch and TensorFlow for multi-object tracking and behavioral analysis
- Architected scalable backend infrastructure with FastAPI and Redis for handling high-throughput video stream processing
- Achieved 94% accuracy in threat detection with sub-second latency, processing 30+ concurrent video feeds

DocuMind | Intelligent Document Analysis & RAG System

github.com/human-12/documind

- Developed a production-ready document intelligence platform using advanced NLP and Retrieval-Augmented Generation (RAG) techniques
- Integrated Large Language Models (GPT-4, Claude) with LangChain and vector databases (Pinecone, ChromaDB) for semantic document search and question-answering
- Built responsive React frontend with Next.js, implementing real-time document chat interface with streaming responses
- Deployed on AWS with Docker containerization, serving 1000+ documents with 85% reduction in information retrieval time

NeuroFinance | *Deep Learning Financial Analytics Platform*

github.com/human-12/neurofinance

- Designed and implemented neural network-based predictive models for financial market analysis and algorithmic trading strategies
- Utilized LSTM and Transformer architectures in TensorFlow for time-series forecasting of stock prices and market sentiment analysis
- Integrated real-time financial data APIs with Django REST framework and PostgreSQL for data pipeline management
- Developed interactive data visualization dashboard using React and D3.js for portfolio performance tracking and risk assessment
- Backtested trading algorithms achieving 23% average annual return with Sharpe ratio of 1.8 over 3-year historical data

PROFESSIONAL EXPERIENCE

Self-Employed AI Engineer & Full Stack Developer

2022 - Present | Remote

- Architected and deployed multiple end-to-end AI applications spanning computer vision, NLP, and financial analytics domains
- Built and fine-tuned custom machine learning models, improving baseline performance by 15-30% across various tasks
- Implemented CI/CD pipelines using GitHub Actions and Docker for automated testing and deployment of ML models
- Collaborated with cross-functional stakeholders to translate business requirements into technical specifications and deliverables
- Maintained comprehensive technical documentation and version control practices for all projects using Git and GitHub

TECHNICAL COMPETENCIES

- **Programming Languages:** Python, JavaScript, TypeScript, SQL
- **Machine Learning:** Supervised/Unsupervised Learning, Deep Neural Networks, Transfer Learning, Model Optimization
- **Data Processing:** NumPy, Pandas, Matplotlib, Seaborn, Data Preprocessing & Feature Engineering
- **Software Engineering:** Agile Methodologies, System Design, API Development, Database Design, Testing (Unit, Integration)