NAIM BARNETT

AI/ML Engineer | Applied Research | Model Evaluation & Optimization
naim.barnett@gmail.com | naim-barnett.com | LinkedIn: naim-barnett | https://github.com/nsbarnett

PROFESSIONAL SUMMARY

M.S. in Computer Science (AI) with hands-on ML projects, LLM evaluation, and manufacturing engineering experience. Combines research communication with translating operational requirements into technical inputs.

EXPERIENCE

Tooling Engineer, Lockheed Martin – Missiles & Fire Control **Jun 2021 – Present**

- Reduced annual operating costs by **$281K** by leading performance-metrics initiatives and identifying process inefficiencies
- Increased engineering and production throughput by developing **internal tools** and applying **data-driven automation** to reduce manual work and operational bottlenecks.

Additional assignment: Technical Product Owner, Scheduling Optimizer **July 2026 – Present**

- Supported pre-implementation scheduling requirements across **8 YAML files** for a **Google OR-Tools** optimizer by conducting engineering and operator intakes, observing shop-floor processes, and documenting requirements

Xtegrity – Enterprise AI Governance Contributor **Jul 2026 – Present**

- Supported enterprise AI governance development through platform research and technical meetings focused on feature completion, serving as a liaison for technical discussions

AI Researcher (NDA-Protected Project), OpenAI **Mar 2024 – Aug 2024**

- Identified LLM failure modes through adversarial and edge-case evaluations by testing model behavior and analyzing reliability issues
- Assessed evaluation-dataset quality through difficulty calibration and failure-exposure analysis by benchmarking datasets used for model evaluation

SELECTED RESEARCH & AI PROJECTS

Pilot Workload Classification | IJAAA, 2025

- Contributed to a peer-reviewed pilot-workload classification publication by writing and formatting the manuscript to communicate the study's methods and findings

AI Apprentice - Hack-Nation 7 | Hack-Nation Global AI Hackathon, 2026

- Delivered a functional AI apprenticeship prototype within 24 hours with a four-person team by leading the core technical implementation
- Captured context behind expert decisions by integrating screen-context analysis, LLM reasoning, and ElevenLabs voice prompts at key workflow moments

Company AI Assistant (In Progress)

- Implemented document-retrieval workflows for an in-progress AI assistant by building ingestion, chunking, embedding, and retrieval components within a **FastAPI-based RAG** architecture
- Enabled portable application packaging with **Docker** and designed automated test/deployment workflows using **GitHub Actions**

Machine Learning & Predictive Modeling

- Improved classification-model performance through hyperparameter tuning and feature engineering using **scikit-learn**
- Developed MLP models for socioeconomic predictive analytics and implemented and evaluated deep-learning architectures using **PyTorch and TensorFlow**

NLP & Autonomous Systems

- Enabled semantic text analysis with NLP preprocessing pipelines built using NLTK, NumPy, and Pandas
- Enabled autonomous navigation and task execution in dynamic virtual environments by engineering AI simulation agents

LEADERSHIP

OpenAI Forum – Local Lead (Texas) **2025 – Present**

- Facilitated and organized OpenAI Forum events and volunteered to help sports organizations and coaches understand how to use OpenAI's tools for business and instruction

TECHNICAL SKILLS

AI/ML & Python
Python, PyTorch, TensorFlow, scikit-learn, NLP, model evaluation, LLM robustness testing, adversarial prompting, transfer learning, multimodal AI workflows

Data & Optimization
NumPy, Pandas, SQL, data preprocessing, YAML inputs for Google OR-Tools scheduling optimizer

Backend & Systems
FastAPI, RAG, REST APIs, database architecture, Supabase, automation tooling

Tools & DevOps
Git, GitHub Actions (CI/CD), Docker, AWS, Linux

Application Development
React Native, JavaScript, TypeScript, Pygame, ElevenLabs

EDUCATION

M.S. Computer Science (Artificial Intelligence)
Southern Methodist University
2025

B.S. Engineering Science
Trinity University
2021

Minors: Mathematics & Physics

PUBLICATIONS

Generalizing Classification of Pilot Workload: Transfer Learning vs. a JEPA-Inspired Transformer Architecture
Barnett, N., Nagrecha, S., Glover, M., Harper, C., Wilson, J., Maher, J., & Larson, E. C.
International Journal of Aviation, Aeronautics, and Aerospace, 12(1), 2025
DOI: 10.58940/2374-6793.1971