LUQMAN ARSHAD

AI / ML Engineering Student | Mathematical Reasoning | Computer Vision | Robotics
Harbin, China | +86 19845475712 | arshadluqman474@gmail.com | linkedin.com/in/luqman-arshad-72a9812a8

EDUCATION

Bachelor of Science in Artificial Intelligence **Sep 2023 - Jul 2027 (Expected)**
Harbin Engineering University *Harbin, China*
Relevant Coursework: Linear algebra, calculus, discrete mathematics, probability and statistics, data structures and algorithms, machine learning, deep learning, computer vision, NLP, robotics

TECHNICAL SKILLS

Programming: Python, C++
ML / Computer Vision: PyTorch, TensorFlow, OpenCV, MediaPipe; deep learning, model evaluation, real-time perception
Formal Reasoning / LLMs: Lean 4, symbolic reasoning, proof search, prompt design, LLM evaluation and proof repair
Developer Tools: Git, GitHub, VS Code, PyCharm

RESEARCH AND TECHNICAL PROJECTS

SAIR Mathematics Distillation Challenge - Equational Theories **Team Lead / Prompt Designer | Stage 2 in Progress**

- Developing a hybrid Python and Lean 4 solver for implication between magma equations; each answer must be a kernel-checked proof certificate or a finite operation-table counterexample.
- Implemented counterexample search over finite magmas of size 2-7, symbolic unification, bidirectional breadth-first search (BFS) rewriting, constancy-lemma synthesis, proof-library lookup, and an LLM fallback that repairs proofs from structured Lean errors.
- Stage 1: led mathematical-reasoning prompt design and evaluation; ranked 1st at the university and 80th overall with 58.0% accuracy, 43.4% F1, and 99.6% parse success.

Hand, Face, and Body Tracking System **Python | OpenCV | MediaPipe**

- Built a real-time multi-model pipeline combining MediaPipe Hands (21 landmarks), Face Mesh (468 landmarks), and Pose (33 landmarks) with OpenCV frame processing, overlays, and gesture logic derived from landmark geometry.
- Measured approximately 85% gesture-recognition accuracy and 90% pose-detection accuracy on project test cases.

AIGC Prompt Video Competition **First Prize | Harbin**

- Designed and iterated prompt sequences, scene composition, and narrative flow for an AI-generated video about future and drone technology; won first prize.

Robotics Prototypes - Obstacle Avoidance and Self-Balancing **Embedded Control**

- Implemented sensor-threshold logic for real-time obstacle detection and left/right navigation; integrated gyroscope feedback with closed-loop control logic to maintain balance on a two-wheel robot.

WORK EXPERIENCE

Data and Operations Coordinator | United CDL Training School **Jun 2023 - Aug 2024**

- Supported Facebook advertising, client communications, and performance reporting for a U.S. driving school in a remote, cross-time-zone role; campaign work improved client conversion by approximately 30%.

LANGUAGES

English (Fluent) | Urdu (Native) | Chinese (Conversational) | Thai (Basic)