

Akbar Aman

AI & Systems Engineer

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SUMMARY

Computer Engineer experienced in designing enterprise AI systems, infrastructure-driven solutions, automation, & production software across industry, research, & client environments.

EDUCATION

University of Illinois Chicago, College of Engineering Expected: May 2027
B.S. in Computer Engineering (Computer & Networked Systems Track), Minor in Mathematics GPA: 3.54
– **Relevant Coursework:** Comp Arch, Networking, Data Structs & Algos, Digital Systems, Systems Programming
– **Leadership:** Computer Science Teaching Assistant (MATLAB, 2 terms) & Engineering Success Mentor (2 terms).

EXPERIENCE

AI Intern May 2026 – Present
AHEAD Chicago, IL
– Supported enterprise AI enablement initiatives by helping transform internal AI platforms into governed workflows that improve knowledge access, operational efficiency, and organizational adoption. Collaborated across teams to integrate AI-driven solutions within a large enterprise environment while balancing usability, governance, and scalability.

Software Engineer Sep 2025 – Present
ArkBoosted Remote
– Engineered client AI & automation solutions, including a multi-tenant RAG system serving 700+ organizations using PostgreSQL (pgvector) and LLM-powered retrieval pipelines to improve knowledge access and support workflows.
– Implemented an automated performance benchmarking engine utilizing algorithmic scoring to audit network latency and resource bottlenecks, driving optimization strategies that improved client operational efficiency by over 90%.

AI Safety Evaluator / Red Team Prompt Engineer Apr 2026 – July 2026
LinkedIn Remote
– Red teamed frontier AI systems by developing adversarial prompts, identifying failure modes, and applying structured safety evaluations across reasoning, coding, and instruction-following tasks to improve model reliability and alignment.

AI Systems Engineer Oct 2025 – March 2026
Talent Strategy Experts Remote
– Architected & implemented production version of a multi-tenant SaaS platform for AI inference, owning end-to-end backend, frontend, deployment & system documentation, & preparing the system for team-based development & scale. Designed isolation boundaries, role-based access control, and reliability safeguards to support secure org-level data.

Deep Learning/AI Research Intern Jun 2024 – Aug 2024
UIC Department of Electrical & Computer Engineering Chicago, IL
– Led a team of five to design and prototype *Vision Mamba*, a custom neural network achieving a 30% accuracy improvement while optimizing for low-latency, high-throughput inference on constrained edge devices, and completed specialized advanced HW/SW co-design training using hls4ml to synthesize PyTorch models into FPGA bitstreams.

TECHNICAL PROJECTS

Quantitative ML Research Platform | *Python, Pandas, NumPy, Jupyter* [GitHub]
– **Promoted to Intern Lead** within Crypt0nest’s quant research lab, developing & validating ML-driven trading strategies via feature engineering, market data analysis, and backtesting. Built reproducible experimentation pipelines and implemented safeguards against look-ahead/survivorship bias, and leakage across time-series financial datasets.

Full-Stack MLS Property Platform (IDX Exchange Internship) | *Python, PHP, MySQL, REST API* [Live]
– **Led a SWE team of 6;** Created a real-time property search platform integrating live MLS data via Restful APIs utilizing OAuth 2.0; engineered automated cron-job synchronization and optimized MySQL schemas to manage 1,000+ active listings on a Linux VPS environment while ensuring efficient data normalization and low-latency.

Bare-Metal Embedded Safety System | *C, ARM Assembly, CCS, Cortex-M4F* [GitHub]
– Engineered a **dual-mode** bare-metal system on ARM Cortex-M4F utilizing Timer Capture ISRs, ADC sequencers, and Memory Mapped I/O-based PWM drivers to achieve precision ranging and 0.1°F resolution, while implementing a non-blocking architecture via Wait-For-Interrupt (WFI) to minimize power consumption during idle execution cycles.

TECHNICAL SKILLS

Languages: Python, C++, C, JavaScript, TypeScript, Java, SQL, PHP, Bash, ARM/MIPS Assembly, SystemVerilog
Frameworks & Web: React, FastAPI, Node.js, REST APIs, WebSockets, HTML/CSS, OAuth, Nginx, Terraform
Systems & AI Tools: Linux, Docker, AWS, CI/CD, Git, PyTorch, GGUF, Performance Modeling, FPGA (Vivado)