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Hiring Committee
Lenovo — Advanced AI Technology Center (AAITC)
Morrisville, NC

Dear Lenovo Hiring Team,

I'm excited to apply for the Senior Engineer, AI Architecture role. This position fits my background in architecting models and shipping full-stack AI systems with custom model implementations, agentic workflows, and proprietary tooling. Lenovo's AAITC mandate establishing reliable, measurable, and reusable AI capabilities across products and platforms is exactly where I add the most leverage.

Across healthcare, insurance, and enterprise services, I've led end-to-end GenAI programs: designing model and data architectures, building platform components, and deploying production systems that blend LLMs, RAG, agents, and classical ML. I treat the stack holistically — schemas and embeddings, retrieval layers and vector stores, prompt/agent orchestration (LangChain/LangGraph), safety and evaluation frameworks, and the CI/CD and observability needed to keep models reliable over time. When off-the-shelf isn't enough, I implement custom adapters, evaluation harnesses, and internal tools that product teams can reuse.

Recent POC highlight (commerce + social): I fine-tuned a conversational model to handle an Instagram influencer's DMs via an agent with Shopify and Meta API access. The system performs retrieval over catalog, order, and policy data, executes actions (cart updates, fulfillment lookups), and enforces guardrails for safe operations. I built prompt/policy registries, evaluation scorecards (groundedness, tool-use success, latency), and CI/CD checks so only configurations meeting SLOs ship. This POC demonstrates my ability to extend foundation models, wire agent tools, integrate external APIs, and operationalize evaluation — the same patterns required to scale AI reliably in an enterprise setting.

Why I'm a strong fit for a Senior Architecture role at Lenovo:

- **Full-stack AI architecture:** Data contracts and embeddings; retrieval pipelines and vector stores; agent toolchains; Python/FastAPI inference with caching, guardrails, and multi-tenant controls; UI patterns that make complex workflows usable.

- **Custom model & tooling work:** Fine-tuning and adapter strategies; prompt/policy registries; eval scorecards (faithfulness, groundedness, tool-use, multilingual/edge cases); promotion gates that block regressions.

- **Platform thinking:** Convert successful prototypes into reusable platform components — templates, SDKs, and playbooks — so application teams can stand up LLM/RAG patterns quickly and safely.

- **Cloud & deployment fluency:** Deploy on Azure and AWS with containerized services, feature stores, and pipelines; integrate model/prompt CI/CD, telemetry, and cost/latency budgets into release workflows.

- **Leadership & enablement:** Mentor engineers, run architecture reviews, and align stakeholders on roadmaps, risk, and measurable outcomes; partner with security and governance in regulated contexts.

Selected outcomes:

- **Production RAG + agent systems:** Shipped HIPAA-aware, retrieval-grounded assistants that reduced time-to-answer and manual workload while meeting accuracy and auditability targets.

- **Evaluation as a first-class discipline:** Built golden sets, adversarial prompts, and drift alerts; instrumented dashboards for quality, latency, and cost; prevented regressions via automated promotion gates.

- **From prototype to platform:** Standardized internal libraries for retrieval, prompting, and tool-use; accelerated new use cases from months to weeks without sacrificing reliability.

Lenovo's breadth — from devices to data center to services — makes AI architecture a multidomain challenge. That is where I thrive: quickly testing new LLMs and agent frameworks, extracting what works, and codifying it into platform patterns that scale across teams and products. I'm eager to help AAITC establish an architecture and operating model that turns research into dependable customer value.

Thank you for your consideration. I would welcome the chance to discuss how we can elevate Lenovo's AI architecture — from core patterns and platform components to evaluation, safety, and developer experience — so every AI product you ship is robust, measurable, and ready for scale.

Sincerely,
Sam Neubauer