

Sreenaina Koujala

nkoujala@gmail.com | [571-524-8340](tel:571-524-8340) | sreenaina.com | linkedin.com/in/sreenaina-koujala | github.com/Nainicorn

EXPERIENCE

AI Engineer, Senior Associate

Oct 2026 – Present

Peraton

Herndon, VA

- Developing agentic features via Peraton[x] for BNATCS

Full-Stack & AI Engineer

Aug 2022 – Oct 2026

Zazvata Inc.

Ashburn, VA

- Expanded ZazUI, a production **data visualization platform** deployed across **10+ federal government programs**
- Architected an **agentic widget-generation system** that reasons over a component schema and emits production-ready UI code from natural language specifications, reducing widget development time by **80%**

Full-Stack & AI Engineer

September 2025 – May 2026

Leidos

Fairfax, VA

- Architected a **82,000-line production system on AWS GovCloud**, that converts unstructured building documentation (PDFs, blueprints, AutoCAD DXF, photos) into **IFC4-compliant BIM models**, automating a previously manual engineering workflow
- Designed a **seven-stage serverless pipeline** (Step Functions, DynamoDB, S3, ECR, Amazon Bedrock) pairing deterministic DXF parsers with a multimodal vision pipeline for real-world scale calibration
- Built a **claims-based provenance model** where every extracted fact carries its evidence chain and confidence score, with a resolution engine reconciling conflicting data across sources
- Hardened the pipeline with a **dual-validator (Zod + Pydantic)** contract layer and a real-time **WebGL IFC viewer** for interactive review of generated models

AI & Data Exploitation Intern

June 2025 – August 2025

Steampunk, Inc.

McLean, VA

- Built **WovenAI**, a production AI chat platform (FastAPI, SQLite, AWS Strands SDK) with end-to-end LLM streaming; architected a **pluggable MCP tool registry** (HTTP/SSE transports, dynamic loading, graceful fallback) and authored four MCP servers
- Replaced multi-hour manual analyst workflows with a governed AI interface built on **context engineering** and scoped tool permissions, reducing data retrieval time by **45%**

Software Engineering Intern

January 2023

Microsoft

Reston, VA

- Built a **custom canvas mini-map scroll-bar** (drag-to-scroll, click-to-peek) in React and Konva for a real-time RF spectrogram in **IQEngine**, a spectrum-analysis tool
- Migrated the React codebase from class components to **hooks architecture**; shipped **20+ tasks in a 2-week sprint** covering spectrogram UI and a full UX overhaul

PROJECTS

Suja

Perimenopause care app

- Architected a full-stack React Native/Expo + Supabase app with **HIPAA-equivalent** standards under the FTC Health Breach Notification Rule (Postgres row-level security scoped per user on every PHI table, append-only PHI access audit log, synthetic-only dev/staging, de-identified research export isolated from primary tables)
- Designed a **RAG-grounded** explanation layer over a clinician-reviewed, version-tracked medical corpus, hybrid retrieval (pgvector + Postgres full-text, merged via reciprocal rank fusion) with per-chunk citations, and **escalation rules enforced in code** that defer flagged or low-confidence answers to a licensed clinician
- Built features women deserve and need: symptom and cycle tracking with useful patterns for irregular cycles, PCOS (PMOS), and post-hysterectomy users where standard staging criteria break down, plain-language lab result explanations, and doctor-visit-note generation with predictions computed **deterministically** (recency-weighted rolling mean + variance, confidence shown in-UI)

EDUCATION

George Mason University

Fairfax, VA

Bachelor of Science (Honors), Computer Science

May 2026

CERTIFICATIONS

AWS AI Practitioner | **AWS** Machine Learning Engineer Associate | **Neo4j** Certified Professional

SKILLS

Languages: Python, JavaScript, TypeScript

Frontend: React, Next.js, HTML, CSS, WebGL, Canvas API, WebSockets

Backend: Node.js, FastAPI, GraphQL, REST APIs, System Design

AI/ML: Anthropic SDK, OpenAI Responses API, LangGraph, Amazon Bedrock, AgentCore, MCP, Strands SDK, RAG, Graph RAG, Neo4j, PyTorch, Playwright MCP

Cloud & DevOps: AWS (Lambda, Step Functions, S3, DynamoDB, API Gateway, Bedrock, GovCloud), Docker, Nginx, CI/CD

Databases: PostgreSQL, MongoDB, SQLite