SHAWDAI MARIE

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U.S. Citizen · No Sponsorship Required

SUMMARY

AI and software engineer focused on Python, deep neural networks, and agentic application development and deployment. Addressed code reliability through 400+ implementations and reproducible verification, achieving a 95%+ pass rate. Delivered 120+ production deployments through full-stack applications, APIs, data pipelines, and cloud automation.

EDUCATION

University of Colorado Boulder In progress
Graduate studies in Engineering, Computer Science & Artificial Intelligence

University of Colorado Denver 2020 - 2024
Undergraduate studies: neuroscience, biology, computational sciences & biotechnology

Massachusetts Institute of Technology | Open Learning Completed 2026
Independent, non-degree coursework
Artificial Intelligence (6.034); AI and Algorithms (SERC learning materials); Introduction to Machine Learning; Machine Learning with Python: From Linear Models to Deep Learning.

HarvardX | Online Study Completed 2026
Python for Data Science and Deep Learning
Neural Networks and Deep Learning with Python (CS109xb); Machine Learning and AI with Python.

EXPERIENCE

Mercor January 2026 - Present
AI Engineer

- Resolve AI-generated code quality tradeoffs across 4 dimensions: correctness, efficiency, maintainability, and test evidence; produce documented, evidence-based preference judgments.
- Make repository debugging reproducible across 3 languages (Python, C++, TypeScript) by isolating Docker environments and automating 3 test runners: pytest, Jest, and ctest.
- Compare model checkpoints on 3 measures (pass@k, token efficiency, latency) using deterministic agent loops and Pydantic/gRPC/JSON-RPC tool servers to produce repeatable evaluations.

Handshake AI 2025 - 2026
AI Engineer | AI Fellowship completed 2026

- Achieved a 95%+ verification pass rate across 400+ code and reasoning implementations by building reference solutions and verification assets addressing foundation-model coding errors.
- Addressed code-quality risks across 5 languages (Python, C++, Rust, Go, TypeScript) through unit tests, static-analysis gates, and execution harnesses, producing verified evaluation assets.
- Reviewed training examples, resolved specification conflicts, and designed adversarial retrieval and tool-use benchmarks; connected application prototypes to backend integrations.

Essential Digital Solution June 2016 - December 2024
Software & AI Engineer

- Achieved 96% client satisfaction across 120+ production deployments by addressing application and integration needs in 8 verticals with full-stack systems, APIs, and cloud automation.
- Addressed recommendation and scheduling needs across 5 retail brands by delivering Python/TypeScript backend services and pipelines with Node.js, PostgreSQL, and Redis.
- Implemented asynchronous event ingestion, anomaly monitoring, and webhook services using AWS, Docker, and Kubernetes to support deployment reliability.

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PUBLICATIONS AND CONFERENCES

Engineering projects and technical materials

Sentinel | Governed Agentic Application Development
github.com/Shawdaimarie/sentinel

- Addressed unauthorized tool-use risks across 4 agents (crawler, verifier, prober, reporter) with a Python 3.11 platform enforcing deny-by-default policies and deterministic evaluation.
- Validated 20 synthetic scenarios through pytest, Ruff, and strict mypy; built SHA-256/HMAC audit chains, tamper detection, network controls, and a Pydantic/HTTPX CLI for verifiable execution.

Agent Trace Validation | OpenTelemetry Diagnostic Engine
github.com/Shawdaimarie/agent-trace-fixtures

- Made trace defects reproducible with 9 synthetic OTLP fixtures and a Python verification engine detecting malformed identifiers, missing parent links, retry loops, cycles, and timing anomalies.

Engineering Standards CLI | Automated Code Quality & Reporting

- Operationalized 10 engineering principles by translating a charter into a Python static-analysis CLI and CI acceptance gates, producing automated quality reports with an optional FastAPI/PostgreSQL backend.

Nyx Market Dashboard | Application Development & Observability

- Addressed visibility and transient-failure risks with 4 application capabilities: Chart.js telemetry, feature flags, client-side observability, and exponential-backoff retries in TypeScript/JavaScript.

CS-AI Systems Curriculum | Open Technical Education

- Connected 3 study areas (computer science, systems, LLM engineering) to implementation workflows by authoring a 720-hour curriculum for structured technical learning.

Project NASA | Confidential Deep Learning Application Project

Applied deep neural learning to software application development; project identity and implementation details remain confidential.

Handshake AI Project Portfolio | 2026

Contributed across 4 projects - Project NASA, Project Codex, Project GPT-5, and Project Fable 5 - through foundation-model post-training, code verification, and AI engineering.

AI Builders Global Conference 2026 | Attendee October 14 - 16, 2026
Completed 3 days of online conference attendance with AI Builders Network; earned a certificate of attendance.

FELLOWSHIP AND CERTIFICATION

Handshake AI Fellowship Completed 2026
Completed the fellowship in 2026; delivered 400+ implementations at a 95%+ verification pass rate through reference solutions, Python code verification, and model evaluation.

AI Builders Network | Certificate of Attendance 2026
AI Builders Global Conference 2026 · Credential ID: DHN6-1W5T

TECHNICAL SKILLS

Python & applications: Python 3.11+, FastAPI, asyncio, Pydantic, NumPy, pandas, SQL, TypeScript, React, Next.js, Node.js, PostgreSQL, Redis, REST/GraphQL APIs.
Deep learning: PyTorch, TensorFlow, JAX/Flax, Hugging Face Transformers, deep neural networks, fine-tuning, LoRA/QLoRA, model evaluation, MLflow, vLLM, and quantization.
Agentic development & deployment: MCP servers, tool calling, structured outputs, LangGraph, LangChain, LlamaIndex, RAG, pgvector, OpenAI/Claude APIs, Docker, Kubernetes, AWS, Terraform, GitHub Actions, pytest, Ruff, mypy, and OpenTelemetry.