

Tharanitharan Muthuthirumaran

Portland, ME (open to relocation) | 207-332-4078 | muthuthirumaran.t@gmail.com | linkedin.com/in/tharanitharanm | github.com/Tharanitharan-M

EXPERIENCE

SUK Labs | AI Product Studio

Jul 2026 - Present

Forward Deployed Engineer

Portland, ME

- Shortened request turnaround from 13 days to 4 for a nonprofit client's 300+ caseworkers by building and deploying an intake app with structured requests, live status tracking, and notifications on Next.js, React, TypeScript, PostgreSQL, Firebase, and GCP.
- Led on-site discovery with caseworkers to map the intake workflow, identify bottlenecks, and turn the findings into requirements for the intake app, then trained non-technical caseworker staff alongside the build.
- Added an OCR pipeline on Google Cloud Vision that reads fields from uploaded documents, with rules-based validation and human review of low-confidence fields, ending manual spreadsheet entry for up to 600 requests a week at peak.

Steady State LLC

Jan 2026 - May 2026

AI Engineer (Contract)

Portland, ME

- Built the backend and AI layer of an LLM coaching platform in TypeScript, NestJS, and GraphQL, with tool-calling and token-by-token streaming, that classifies athlete injury risk across 10 types and lets coaches chat with an AI about their athletes.
- Required two-phase coach approval before any AI-proposed database write, with zero incorrect writes across 6 weeks of live use.
- Tested the backend with Jest and Postman across unit, integration, API, security, performance, and load tests.
- Wrote the system design, API contracts, and eval criteria that let 5 engineers build the rest of the app in parallel from week one.

Skillsoft

Jan 2025 - Aug 2025

Software Engineer (Co-Op)

Remote, US

- Cut OpenAI spend 13% on the AI content platform through prompt and context trimming, feature toggles, and rollout guardrails, monitoring usage and LLM traces in Datadog to catch cost spikes early.
- Launched an LLM auto-quiz generator in Author, Skillsoft's content platform, that produces publish-ready question sets for Codecademy and Percipio and saves 2 hours of manual authoring per course.
- Shipped one-click localization on AWS (Amazon Translate), replacing an external vendor's manual XML translation process for French, German, and Spanish.
- Migrated 6 production microservices from Python 3.12 to 3.13, standardizing deployment on a single Docker image and completing the rollout with zero downtime.

Accenture

Oct 2021 - Dec 2023

Associate Software Engineer

Chennai, India

- Delivered 23% faster API response times for Chubb North America by tuning SQL, adding indexes, and reading execution plans.
- Resolved 150+ production defects in Java and SQL services for this regulated insurance client through root-cause analysis.
- Automated regression coverage in Pytest for an Agile team and wired it into Jenkins CI/CD, cutting manual QA cycles 19%.

PROJECTS

AuditPilot | Python, LangGraph, Pydantic AI, MCP, FastAPI, pgvector, Promptfoo, Langfuse, Claude Code

- Architected a multi-agent SOC 2 readiness system on LangGraph in which an orchestrator agent drafts findings, an adversarial auditor agent cross-examines each one, and a human approval gate signs off before anything ships.
- Published compliance-kb-mcp, a reusable MCP server on PyPI and npm, whose hybrid RAG retrieval pairs pgvector embeddings with BM25 keyword ranking to surface the right control across 324 NIST 800-53 controls.
- Gated GitHub Actions CI on a Promptfoo and RAGAS eval suite of 100 hand-labeled cases that fails any change dropping agent quality more than 2%, and traced every agent run in Langfuse and OpenTelemetry.
- Ran a spec-driven Claude Code workflow with sub-agent code reviewers and hooks that block destructive git commands.

Mentivo AI Learning Platform | Next.js, TypeScript, Gemini, Vercel AI SDK, Langfuse, Promptfoo, OpenTelemetry

- Designed an AI coding mentor that builds personalized 7-milestone roadmaps and tests understanding with adaptive quizzes.
- Powered a multi-turn mentor on Gemini 2.5 Flash via the Vercel AI SDK, with 8 versioned prompts and Zod-validated output.

EDUCATION

Northeastern University

Boston, MA

Master of Science in Computer Science; GPA: 3.9/4.0

Jan 2024 - May 2026

Anna University

Chennai, India

Bachelor of Engineering in Electrical & Electronics; GPA: 3.6/4.0

Aug 2017 - May 2021

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, SQL, Bash

Data: PostgreSQL, pgvector, Neon, MySQL, Kafka, Redis, DynamoDB

AI & Agents: LLM Applications, Agentic Workflows, Multi-Agent Systems, Tool-Calling, RAG, MCP, LangGraph, Claude Code

Evals & Observability: Promptfoo, RAGAS, LLM-as-Judge, Guardrails, Langfuse, OpenTelemetry, Datadog, Grafana, Sentry

Full-Stack: FastAPI, NestJS, Node.js, Spring Boot, REST APIs, GraphQL, React, Next.js, Tailwind CSS

Cloud & DevOps: AWS, Azure, GCP, Docker, Terraform, CI/CD (GitHub Actions, Jenkins), Git, Pytest, Jest, Postman

Claude Academy: Building with the Claude API, Claude Code 101, Introduction to Model Context Protocol, Model Context

Protocol: Advanced Topics, AI Fluency: Framework and Foundations, Building Effective Human-Agent Teams