Sothaninn Sieng

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EXPERIENCE

Lead Software Engineer | Gradient AI and Robotics Jun 2026 – Present

- Lead full-stack development of the Repacks Marketplace across shopping, checkout, wallets, inventory, and fulfillment with Next.js, TypeScript, FastAPI, and PostgreSQL.
- Translate client requirements into technical priorities and lead engineering delivery for the marketplace and VerifAI.
- Engineered Stripe and wallet checkout and refunds with durable work leases, idempotent requests, lock ordering, and partial-payment recovery; kept provider calls out of DB transactions.
- Configured AWS ECS with Terraform, scoped IAM, and Secrets Manager; added database integration and Playwright tests, monitoring, and guarded CI/CD migrations.

Software Engineer (Full-time) | Gradient AI and Robotics May 2025 – Jun 2026

- Built VerifAI with React, TypeScript, and FastAPI for AI identification and image-quality review, with centralized permissions and audit trails; its dataset now exceeds 2.5M entries.
- Persisted reviewer progress in PostgreSQL across reloads and order changes; made queue ingestion idempotent and replaced long-lived database sessions with scoped sessions.
- Built pricing APIs and Redis Streams workers that acknowledge successful jobs and reclaim interrupted work, with PostgreSQL pricing history and snapshot tooling.

Software Engineer Intern | Gradient AI and Robotics Oct 2024 – May 2025

- Optimized Python image-analysis algorithms, reducing processing time from 3s to 0.1s per image; built mask-quality scoring and visual reports for dataset evaluation.
- Built Python dataset-analysis and visualization tools for Mask2Former and YOLOv11L evaluation, contributing to a 20% improvement in model accuracy.

Software Engineer Intern | Bilimetrix USA Jun 2024 – Aug 2024

- Developed C# color-detection algorithms for blood-test strips, increasing quantified images by 10%.
- Built accessible image search in ASP.NET Razor Pages; added C# unit tests for healthcare software.

Site Reliability Engineer Intern | Costco Wholesale Jan 2024 – Mar 2024

- Automated intake-to-user-story creation in Azure DevOps using Power Apps and Power Automate, increasing submissions handled by the SRE team by 60%.
- Built Power BI dashboards to monitor critical APIs and services and support SRE debugging.

SELECTED PROJECT

Google and Trusted Computing Group Sponsored Capstone

TPM Fuzz Testing Pipeline Sep 2024 – Mar 2025

- Contributed to the design of a Go/Docker Trusted Platform Module fuzz-testing pipeline; implemented TPM initialization and command setup, and added Go input-handling tests.
- Authored the research and handoff proposal on Markov-chain command sequencing and byte-level mutation, evaluating tradeoffs and future software and physical TPM testing.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, SQL, Go, C#, C++

Application development: React, Next.js, FastAPI, REST APIs, PostgreSQL, MongoDB, Redis

Infrastructure and testing: AWS (ECS, EC2, S3), Terraform, Docker, GitHub Actions, Pytest, Playwright

EDUCATION

Seattle University | MS, Computer Science, 2025; BS, Computer Science, 2023