Nicholas **Thong**

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Education

University of Houston *Houston, Texas*

Bachelor of Science (BS) in Computer Science – 3.5 GPA

Work Experience

Silpa Companies LLC *Houston, Texas*

DevOps Engineer Intern *Dec. 2025 - Oct. 2026*

- Architected project monorepo and **CI** pipelines using **GitHub Actions**, enforcing branch protection rules and automated quality gates to prevent breaking changes.
- Automated **CD** workflows via self-hosted runners, establishing gated production releases with pre-deployment validation suites.
- Deployed and maintained high-availability production applications for enterprise healthcare clients such as Methodist Hospital and TimelyCare.
- Containerized the application using **Docker**, isolating background workers and enforcing resource limits to optimize host utilization.
- Configured **Nginx** as a reverse proxy for upstream request routing, SSL termination, and secure client-server traffic isolation.
- Implemented structured JSON logging with correlating IDs and automated log rotation, accelerating root-cause analysis while preventing disk exhaustion.
- Provisioned persistent Docker volumes and scheduled automated **PostgreSQL** backups via **pg_dump** for data durability and disaster recovery.

Artisan Technologies *Houston, Texas*

Full-Stack Software Engineer Intern *Mar. 2025 - Nov. 2025*

- Developed a real-time telemetry API with Motion Industries using **Next.JS** and **.NET** to generate data for mocking and testing.
- Used WebSockets connections to stream data to the client and **gRPC** to communicate with internal services.
- Automated local configuration, linting, and testing using **Bash** scripts to streamline development workflows.
- Containerized the service using **Docker** to standardize provisioning and deployment of the service for portability.

Projects

AI-Powered Git-Message CLI Tool

Go (golang), OpenAI API, Git *Jun. 2026 - Jun. 2026*

- Engineered an interactive Go CLI tool that analyzes staged Git diffs, prompts developers with AI-generated Conventional Commits, and executes commits via child processes.
- Implemented diff-filtering pipelines (excluding lockfiles, whitespace noise, etc.) and prompt compression to optimize token and API costs.
- Leveraged asynchronous network calls and context-aware timeouts via goroutines to stream LLM completions with minimal terminal latency.
- Designed strict prompt constraints and schema-validated parsers to strip raw markdown artifacts and enforce Conventional Commit syntax.

End-To-End Sales Analytics Platform (Sponsored Senior Capstone)

Next.js, .NET, PostgreSQL, AWS (EC2), Github Actions, Docker *Jan. 2026 - May 2026*

- Built a platform using **Next.js/TypeScript** and **.NET REST API** connected to a **PostgreSQL** database to meet client requirements.
- Managed deployment lifecycle, separating Dev/Prod environments across **AWS EC2** and **Vercel**, and documented all workflows in **Confluence**.
- Enforced code quality and security by integrating **CI**/**CD** using **SonarCloud**, establishing automated quality gates to block vulnerabilities and code smells.
- Built dynamic **React** dashboards styled with **Tailwind CSS** using our **.NET** engine that processes external sales metrics into actionable insights.

Skills

Cloud and Infrastructure	AWS (EC2, S3), Docker, Vercel, Terraform, Github Actions
Languages and Databases	C/C++, Rust, Python, C#, PostgreSQL, MySQL, JavaScript, Typescript, HTML/CSS, Prisma
Frameworks	.NET, Next.js