

# THAO PHUONG

U.S. Citizen • GitHub • LinkedIn • tphuong141607@gmail.com • 857-800-2667

## PROFESSIONAL SUMMARY

**Full-stack Software Engineer** with 6+ years of experience building web apps, dashboards, and AI-powered systems. Experienced across the stack (React, Node.js, Python, MongoDB, Docker) and in modern AI/ML (Neo4j, HuggingFace, GPT-4, LLaMA-3). Proven track record of delivering safety-focused and data-driven tools that saved manual work, improved workflows for 10+ researchers, and demonstrated potential to reduce aviation accident rates.

## EXPERIENCE

04/2020 – Present

*Dynamic Object Language Labs (DARPA-funded research lab developing AI and safety-critical systems)*

**Implemented real-time safety interventions** — pop-up checklists, image prompts, audio/text guidance, and automated action tracking — aligned with flight phases (taxi, takeoff, landing, etc.) to help pilots reduce cognitive load and cut error rates. **Safety experiments showed potential to cut aviation accidents caused by pilot error (70–80%).**

**Designed and implemented knowledge graph pipelines** (Neo4j + HuggingFace RAG, GPT-4, LLaMA-3), enabling natural-language Q&A and enriched aviation datasets for researcher accessibility and reasoning tasks.

**Developed interactive systems** including real-time chat with agent interventions, audio chat with wake-word detection, video recording for flight simulations, and user profile/checklist UIs, ensuring reliable data capture and streamlined experiment setup.

**Built admin management REST APIs**, enabling developers to manage roles, permissions, and configurations directly without requiring a dashboard.

**Built dashboards** (map visualizer, cognitive load tracking, AI intervention logs, prediction accuracy, and partner metrics), transforming raw JSON data into visualizations that improved workflow for **10+ researchers**.

**Automated data transformation pipelines** (Clojure, JSON, graph generation), **saving 2+ days of manual work per week** and providing reusable tools across the team.

**Launched and maintained dollabs.com**, evolving it from a static page into a dynamic site (MongoDB + Node + React) with secure login and media management, improving usability for non-technical staff and eliminating the need for engineers to handle routine updates.

## SKILLS

Full-stack React, Node.js, Express, Python, Java, Clojure

AI/ML: HuggingFace, spaCy, RAG | Tools: Docker, Git, RabbitMQ, Jenkins, FFmpeg, LaTeX

## EDUCATION

**Suffolk University** (Boston, MA)

1/2016 – 1/2020

Bachelor of Sciences, GPA: 3.97/4.00

Graduation with Honors

Computer Science major, Information Systems & Operations Management minor

Suffolk Upper Division CS Award • Co-Founder of Hack Suffolk • President – Suffolk Ascend