Lenh Nguyen
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PROFESSIONAL EXPERIENCE

The Johns Hopkins University Applied Physics Laboratory **Laurel, MD**
Software Engineer July 2022 – Present

- Engineered full-stack web application that processes real-time data feed from over 7000 medical facilities across the United States, enabling swift and critical healthcare interventions during mass casualty incidents.
- Designed and built browser-based common operating picture application that would allow analysts and decision makers in the information operation space to build analytics dashboard with real-time streaming data from third party sources.
- Developed RAG-based tool suite that enables Q&A, generative summaries, unsupervised document headline clustering, embedded vector query over documents at scale.
- Maintained a translation service internally used by analysts and developers at APL.
- Streamlined a system to ingest and enrich text and image data from various data sources using open-source AI/ML algorithms and models. Supported numerous teams and projects across APL with this enriched data lake via Kafka streams, API, analytics interfaces.
- Optimized ETL data pipeline for video data, resulted in 80% increase in throughput. Integrated with remote storage and image detection models for enhanced test and evaluation.
- Prototyped a stylometric system to fingerprint and attribute authorship from literary pattern, contributing to efforts to combat the rise of disinformation and ghost-writing.
- Prototyped an LLM-enabled interface to UAV operators as a proof-of-concept. Briefed to program managers and successfully sought buy-in.
- Spearheaded GitOps initiatives to deploy rigorous CI/CD pipelines, resulting in 80% reduction in deployment time, enhanced code quality, team efficiency.
- Fostered knowledge-sharing culture across the branch by holding workshops on common design patterns, large language model local deployment to audience of 60+ people.

Textron Systems **Hunt Valley, MD**
Software Engineering Co-op Jan 2022 – June 2022

- Automated build for Universal Ground Control System (UGCS) product line using Jenkins.
- Developed scripts to identify, remediate, and test for vulnerabilities published by CVE database in variety of operating systems used by the UGCS.

EDUCATION

Johns Hopkins University **Baltimore, MD**
Master of Science, Computer Science 2024 - Ongoing

University of Maryland – Baltimore County (UMBC) **Baltimore, MD**
Bachelor of Science, Computer Science; GPA – 4.00 /4.00 August 2018 – May 2022
Dual Track: Cybersecurity & Data Science

TECHNICAL SKILLS

Programming Languages: Python, JavaScript/TypeScript, Shell.
Technical Knowledge: Docker, Kubernetes, Git, CI/CD, Angular, Vue, Prefect, Celery, FastAPI, Prometheus, ElasticSearch, Redis, MinIO, Kafka, RabbitMQ.

PERSONAL PROJECTS

Covid Tracker
Flask, React, PostgreSQL, AWS

- Developed a Leaflet application that allows users to view COVID statistics such as positive cases, deaths, vaccination progress for state and county across United States.
- Maintained data ingestion pipeline with web scraping technique on reputable data sources such as the CDC.
- Automated application deployment using cloud infrastructure such as AWS Amplify, AWS RDS, and GitHub actions.