Lenh Nguyen

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PROFESSIONAL EXPERIENCE

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

- Developed a map-based system 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. Currently in the process of deploying a pilot system at a local hospital, with plans to expand to additional regions by the end of next year.
- Maintained availability and serviceability for an internal data lake used by teams across the Lab. Spearheaded GitOps initiatives to deploy rigorous CI/CD pipelines, resulting in an 80% reduction in deployment time and a 30% reduction in merge request review time. These improvements have not only enhanced code quality and team efficiency but have also resulted in tremendous cost savings in hardware and labor.
- Designed and prototyped a stylometric system to fingerprint and attribute authorship from literary pattern, contributing to efforts to combat the rise of disinformation and ghost-writing. This system has inspired various internal research projects related to information operation and garnered interest from sponsor in information warfare domain.
- Prototyped a data visualization tool to expedite result validation and data exploration, collaborating closely with subject matter experts to ensure the tool met the specific needs of the ML team, resulting in 50% increase in productivity for these data analysis tasks.
- Leveraged a large language model to streamline healthcare crisis situation reporting, reducing data collection and processing time from 15 hours to a mere 3 minutes.
- Optimized and parallelized ETL data pipeline for video data, resulted in 80% increase in throughput. Integrated with remote storage and image detection models for enhanced training and evaluation.

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

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

TECHNICAL SKILLS

Programming Languages: Python, TypeScript/JavaScript, Shell, HTML, CSS.
Technical Knowledge: Docker, Prefect, Dask, GitOps, Angular, Vue, FastAPI, Prometheus, Web scraping, ElasticSearch, Redis, MinIO, Apache Kafka.

PERSONAL PROJECTS

Covid Tracker
Flask, React, PostgreSQL, AWS

- Architected and developed a map-based 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 by applying web scraping method on reputable data sources such as the CDC.
- Maintained an automated integration and deployment pipeline to Cloud infrastructure using GitHub Actions and AWS Amplify.