

Nguyen Le

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EDUCATION

Bucknell University

Lewisburg, PA

B.S. in Computer Science | GPA: 3.50/4.00 (Dean's list all semesters)

May 2027

- Related courses: Data Structure & Algorithm, OOP, System Design, AI/ML, Software Design, Software Development

EXPERIENCE

Software Engineer Intern

May. 2026 – Present

Astrio

San Francisco, CA

- Researched about DafnyPro, presenting its 3-component inference-time framework and 86% DafnyBench verification rate to guide the product's formal verification roadmap.
- Contributed to **integrating DafnyPro's diff-checker, invariant pruner, and hint-augmentation pipeline into Astrio's Python verification stack**, supporting up to 5 annotation retry cycles and export to 7 target languages.
- **Supported development of a multi-client AI verification platform**, collaborating on 10+ UI components for real-time spec editing, verification status, and code export across 17 LLM models.

Software Engineer Intern

Jun. 2025 – Aug. 2025

Brycen

Hue, Vietnam

- **Designed and evaluated semantic search pipelines using embedding models**, vector retrieval, and ranking optimization, improving chatbot retrieval accuracy by 20%.
- Built automated evaluation frameworks in Python to benchmark retrieval systems and **optimize RAG performance, reducing hallucinations by 15% and experimentation time by 30%**.

AI/ML Researcher

Lewisburg, PA

Bucknell University

Feb. 2025 – Nov. 2025

- **Developed automated data extraction pipelines** using GPT-4, Python, and ChromaDB to process 150+ scientific papers, reducing manual collection time by 90%.
- Built a multi-source research agent integrating arXiv, PubMed, ResearchGate, and Web of Science APIs to **automate systematic literature reviews across 40+ search campaigns**.
- Designed retrieval and machine learning pipelines using LangChain, vector databases, and Random Forest models, **tripling research throughput while achieving 67% prediction accuracy**.

ICML VecDB 2025 Workshop

Jan. 2025 – May 2025

- **Developed a hybrid retrieval system combining BM25, FAISS, and MiniLM embeddings with entropy-based score weighting**, improving TriviaQA retrieval quality by 7.6%.
- Optimized large-scale vector search performance through indexing and retrieval enhancements, reducing latency by 11%; **co-authored findings published at the ICML VecDB 2025 Workshop**.

PROJECTS

PC Performance Copilot

- **Built a Rust Windows collector ingesting 8 system metrics** via WMI and Performance Counters every 5s, storing 138K+ daily samples in SQLite.
- **Developed a Python diagnosis engine** with 7-day baselines, 9 root-cause templates, and 30s event-to-metric correlation for ranked, evidence-backed results.
- **Integrated a LangGraph agent and Tauri UI that explain structured diagnoses** in plain English, validated across 6 synthetic lag scenarios.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, SQL, C++, C, R, HTML, CSS, Go, Golang

Frameworks: React, Node.js, Next.js, Express.js, FastAPI, REST APIs Flask, LangChain

AI & ML: RAG, PyTorch, TensorFlow, Scikit-learn, Pandas, NumPy, HuggingFace, Transformers

Databases: PostgreSQL, MongoDB, ChromaDB, FAISS

Cloud & Tools: AWS (EC2, S3, Lambda, RDS), Docker, Git, Linux, Firebase, Vercel, CI/CD