Nguyen X. Le

nxl001@bucknell.com |+1 (272)-788-0654 | [LinkedIn](#) | [GitHub](#)

EDUCATION

Bucknell University   **Lewisburg, PA**
B.S. in Computer Science   *Expected Graduation, May 2027*
- **Concentrations:** Software Development and AI & Machine Learning
- **GPA:** 3.60/4.00, Fall 2023, Spring 2024, and Spring 2025 *Dean's List*
- **Related Coursework:** Data Structures & Algorithms, Computer Organization & Programming, Machine Learning, Object-Oriented Programming, Statistics & Applications, Discrete Structures**,** IOS Development (Codepath)

EXPERIENCE

Brycen   **Hue, Vietnam**
AI Engineer Intern   *Jun. 2025 – Present*
- Developing an **AI chatbot using RAG for enterprise** applications, leveraging Python and OpenAI to enhance user interaction and support.

Bucknell University   **Hybrid**
AI/ML Researcher | Python, RAG, Jupyter Notebook, AI   *Feb. 2025 – Present*
- Developed a **machine learning-powered lifecycle assessment (LCA) framework** for hydrogen production technologies using OpenLCA and Ecoinvent 3.7.1, reducing manual data processing time by **over 60%** through automation.
- Built and validated **predictive ML models (regression & neural networks)** to estimate environmental impacts (GWP, EP, AP, etc.) of biomass gasification methods.
- Integrated LangChain-based AI pipeline to extract and structure LCA data from academic literature, enabling **real-time environmental impact prediction** and improving analysis throughput for emerging hydrogen technologies.

Algoverse   **Remote**
AI/ML Researcher | Python, RAG, Jupyter Notebook, AI   *Jan. 2025 – May 2025*
- Developed an **entropy-based dynamic hybrid retrieval algorithm** integrating BM25 and MiniLM-L6-v2 (Hugging Face) to adaptively reweight dense and sparse scores based on per-query uncertainty, achieving **+7.6% improvement** in LLM-as-a-Judge scores on TriviaQA and **got accepted to ICML VecDB 2025**.
- Benchmarked retrieval pipelines on Hugging Face datasets (HotPotQA & TriviaQA), demonstrating **statistically significant performance gains ($p < 0.01$)** over pure dense and static hybrid baselines using iterative multi-round optimization.
- Designed a **lightweight, retriever-agnostic RAG module** with FAISS and Hugging Face Transformers, enabling **~11% faster retrieval** while maintaining or improving semantic groundedness across diverse QA tasks.

Headstarter AI   **Remote**
Software Engineering Fellow | JavaScript, React.js, Firebase, Agile Methods, HTML, CSS   *Jul. 2024 – Sep. 2024*
- Built and **deployed 4 AI projects in 5 weeks** using React JS, Next.js, Firebase, Clerk, and Vercel, following a**gile methodologies** with weekly sprints and incorporated CI/CD practices for iterative deployment.
- **Developed and launched apps** using Next.js, Material-UI for UI, Stripe API, and Firebase for the backend database, improving user interface design and payment processing efficiency.

PROJECTS

Dungeon Game Simulator | Java, JUnit, Agile Methods, Git   *Apr. 2025 - May. 2025*
- Collaborated in a team of 4 to build a **2D dungeon-type game using Java** for backend development.
- Followed **agile methodologies** with weekly sprints and developed user stories and user personas.
- Developed strict **JUnit tests** for core non-GUI classes.

Flashcard Generator | JavaScript, React.js, Stripe API, SaaS, Git   *Sep. 2024*
- Developed a SaaS product that allows users to generate flashcards with the **Llama 3.1 LLM via the Groq API**.

SKILLS

Programming: Java, Python, JavaScript, HTML/CSS, Node.js, React.js, MATLAB, Swift (iOS) | Google Analytics, Firebase, Material-UI, Pinecone, Clerk, OpenAI, LangChain, RAG
Tools: IntelliJ, Jupyter Notebooks, Git