# Nguyen Xuan Le

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#### **EDUCATION**

**Bucknell University** 

Expected May 2027

B.S. Computer Science | current GPA: 3.76/4.0

Lewisburg, PA

• Honors: Fall 2023 Dean's List, Spring 2024 Dean's List

Quoc Hoc - Hue High School for the Gifted

Jun. 2023

Major in English

Hue, Vietnam

#### RELEVANT EXPERIENCE

## Bifunctional Material Design with Machine Learning

Oct. 2024 – Present

 $Research\ Assistant$ 

Lewisburg, PA

- Collecting and curating a dataset of **over 50 material samples** to train machine learning models for material performance, improving prediction accuracy of material combinations by 20%.
- Analyzing structure-performance relationships across **over 50 material classes** to identify high-performing candidates for CO2 utilization.
- Creating a user-friendly GUI environment to enable researchers and engineers to design and optimize bifunctional materials based on the machine learning model predictions, reducing design time by **approximately 40%**.

Headstarter AI Jul. 2024 – Sep. 2024

Software Engineering Fellow

Remote

- Built and deployed **4 AI projects in 5 weeks** using React JS, Next.js, Firebase, Clerk, and Vercel, following agile methodologies with weekly sprints and incorporated CI/CD practices for iterative deployment.
- Built and deployed an interactive Inventory Management App using Next.js, Material-UI for UI and Firebase for backend database, improving inventory tracking efficiency and user satisfaction.
- Worked in a **team of 4** to develop an interactive customer support agent using Next.js, **integrated a custom RAG pipeline using OpenAI and Pinecone** that responds based on a company's knowledge base.
- Collaborated with a Fellow to build and deploy a Saas product that generates dynamic flashcards based on any topic using the Llama 3.1 LLM via the Groq API, integrated a paywall and custom pricing plans using the Stripe API.
- Participated in weekly sessions with engineers from Google, Y Combinator, Stanford, Amazon and venture-backed startups, gaining insights into industry best practices and expanding professional network.

### ADDITIONAL EXPERIENCE

## Teaching & Learning Center

Sep. 2024 – Dec. 2024

Study Group Facilitator

Lewisburg, PA

- Led weekly study groups of 10 20 students in Introduction to Computer Science and Calculus II, facilitating 90-minute sessions to enhance understanding of course material, resulting in improved student engagement.
- Guided peer learning and problem-solving, contributing to a significant improvement in group members' overall grades.
- Promoted a culture of shared learning by **encouraging knowledge sharing and cross-functional collaboration** between students, leading to a more cohesive learning environment.
- Coordinated with a co-facilitator to align study sessions with course objectives, contributing to students'
  academic success.

#### SKILLS & ADDITIONAL INFORMATION

**Technical**: Python, JavaScript, TypeScript, C, R | Google Analytics, Firebase, Material-UI, Pinecone, Clerk, OpenAI **Frameworks/Developer Tools**: Github, React JS, Jupyter Notebook

Coursework: Technical Interview Prep - Codepath, Web Development - Codepath, CS50x

Languages: English (fluent, 7.5 IELTS), Vietnamese (native speaker)