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Nhat Nguyen

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Education

University of Maryland College Park, MD
B.Sc. in Computer Science *Graduating Dec. 2025*
Relevant Coursework: Object-oriented Programming, Data structures and Algorithms, Machine Learning, Artificial Intelligence, Software Engineering, Network Security, Database Design.

Technical Skills

Languages: Python, Java, JavaScript, TypeScript, HTML/CSS
Frameworks & Tools: Flask, Spring Boot, React, Postman, SQLAlchemy, Kubernetes, Github Actions
Databases: PostgreSQL, MongoDB, Firebase
Version Control: Git, Apache Subversion
Certification: AWS Cloud Practitioner (Issued May 31, 2025)

Experience

Tech Lead Jan. 2025 – May 2025
University of Maryland *College Park, MD*
- Led a team of 3 to build an AR solution classifying 1,400+ plant species using JavaScript, React, and GPS; accuracy reached 90% from 60% compared to AI model.
- Directed weekly client demos and +30 team code/design reviews, achieving 100% on-time delivery and full alignment in Agile sprints.

Backend Engineer Jan. 2024 – May 2025
Forage - Virtual Experience *Remote*
- Designed a simple and scalable hosting architecture based on AWS Elastic Beanstalk for a startup experiencing significant growth and slow response times. Described my proposed architecture in plain language ensuring my client understood how it works and how costs will be calculated.
- Drafted a UML class diagram representing a new reorganized architecture for the Lyft Rentals team. Implemented Python unit tests and added new functionality using test-driven development.

Software Engineer Intern May 2024 – Aug. 2024
AICycle *Hanoi, Vietnam*
- Customized YOLOv5 models and OCR with Python to extract license information from images, resulting in 96% accuracy and cutting data entry time by 50%.
- Researched and implemented vehicle damage detection using edge detection, depth estimation, and segmentation algorithms with OpenCV.

Software Engineer Intern Jun. 2023 – Aug. 2023
Grassroots Groceries *New York City*
- Automated 400+ delivery-driver pairings with zone restrictions and slot matching using JavaScript in Airtable, reducing scheduling time by 80%.
- Implemented queues to resolve data racing in pairing, improving accuracy to 90%.
- Optimized SQL query performance by refactoring slow scripts, decreasing execution time by 200ms per query.

Projects

pcos-compass | *Python, Flask, SQLAlchemy* Aug. 2025 – Present
- Personal project addressing menstrual tracking needs and analysis.
- Built a RESTful Flask API with SQLAlchemy ORM and PostgreSQL for menstrual cycle event management.
- Conducts user surveys on Reddit from an active target audience.
- Future plans include fertility tracking, and connecting users with similar health conditions and goals.

track-team | *Python, Flask, MongoDB* Feb. 2025
- Class solo project to track team personality match and engagement.
- Implemented user session management, password encryption, and authentication.
- Visualized data to show team and class strength distribution with dynamic nodes and edges using VisJS.