

Hieu Nguyen

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Education

Union College

Sep 2024 - Jun 2028

Bachelor of Science in Computer Engineering and Mathematics, Minor in Statistics

Schenectady, NY

- GPA: 3.95 | Honors: Dean's List
- Relevant Coursework: Object-Oriented Programming, Data Structures and Algorithms, Computer and Logic Design, Linear Algebra, Discrete Mathematics, Multivariable Calculus.
- Activities: CodePath Advanced Technical Interview Prep, Andrew Ng Machine Learning Specialization.

Experience

Union Evolutionary Robotics Lab

Mar 2025 - Jun 2025

Undergraduate Researcher

Schenectady, NY

- Accelerated soft robots' learning process by implementing Genesis's Material Point Method (MPM) solver and Taichi-based Automatic Differentiation to provide smart feedback, achieving **90%** faster learning rate.
- Enhanced the maintainability and safety of the Genesis Automatic Differentiation system by refactoring a code-execution function vulnerable to code injection attacks into a type-safe decorator pattern.

Union College

Jan 2025 - Jun 2025

Information Technology Support Specialist

Schenectady, NY

- Diagnosed, resolved and documented software and hardware issues as the first point of contact for technical assistance using the ACE method.
- Developed and maintained a small repository of **PowerShell/Bash** scripts to automate repetitive diagnostic tasks, reducing manual troubleshooting time by **28%** and ensured consistent data collection for escalations.

Projects

The Anvil | *React.js, JavaScript, Node.js, Express, PostgreSQL, OpenAI API* [Live Demo](#) | [GitHub](#)

- Constructed a full-stack productivity app using **React**, **Express** and **Postgres** that guides **14** concurrent users, leading to over **200+** focused work sessions using the Pomodoro technique.
- Built an AI-powered productivity coach by integrating the **OpenAI GPT-4o API**, offering users personalized strategies for enhancing focus and overcoming distractions.

Read-it | *HTML, JavaScript, Node.js, Express, PostgreSQL, Scikit-learn*

[GitHub](#)

- Engineered a full-stack book tracking application, using an **Express.js RESTful API** to manage user data, achieving an average response time of under 200ms for all CRUD operations on reading lists and ratings.
- Created a book recommendation engine using **Scikit-learn's** K-Means clustering to generate personalized suggestions based on users' reading list.

Culinary Alchemy | *React.js, JavaScript, Node.js, Express, PostgreSQL, OpenAI API*

[GitHub](#)

- Created a full-stack recipe creator app with **React**, **Express**, and **Postgres** that integrates the **OpenAI GPT-4o API** to generate cooking instructions based on provided ingredients.

Skills

Programming Languages: Python, Java, JavaScript, C/C++, SQL, HTML, Bash.

Frameworks: React, Node.js, Express.js, Bootstrap, TailwindCSS, jQuery, DiffTaichi, Genesis.

Tools & Libraries: Git/GitHub, PostgreSQL, Docker, SupaBase, Arduino, Sci-kit Learn.