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.

Experience

Union Evolutionary Robotics Lab   Mar 2025 – Present
Undergraduate Researcher   *Schenectady, NY*
- Improved simulation accuracy by 20% through implementing dynamic models of soft robotic systems in Python with DiffTaichi and GENESIS physics simulators.
- Eliminated a high-severity security vulnerability from the automatic differentiation system by replacing a high-risk "exec" call with a secure decorator pattern.

Union College   Jan 2025 – Present
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

Read-it | *React.js, JavaScript, Node.js, Express, SupaBase, PostgreSQL*   GitHub
- Engineered a full-stack book tracking application, leveraging an Express.js RESTful API to manage user-generated reading lists and ratings stored in a PostgreSQL database.
- Developed a book recommendation engine using Scikit-learn's K-Means clustering to generate personalized suggestions based on users' reading list.

Chrono Locus | *React.js, JavaScript, Node.js, Express, PostgreSQL*   GitHub
- Engineered a full-stack application with React, wired with Express and PostgreSQL database that fosters deep work sessions utilizing the Pomodoro technique.
- Developed an AI-powered productivity coach by integrating the OpenAI GPT-4o API, offering users personalized strategies for enhancing focus and overcoming distractions.

Skills

Programming Languages: Python, Java, JavaScript, C/C++, SQL.
Frameworks: React, Node.js, Express.js, Bootstrap, TailwindCSS, jQuery, DiffTaichi, Genesis.
Tools & Libraries: Git/GitHub, PostgreSQL, Docker, SupaBase, Arduino, Sci-kit Learn.