NOAH NGUYEN

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EDUCATION

Purdue University Fort Wayne | Fort Wayne, IN   Expected Graduation May 2025

Bachelor of Science, Computer Science

Coursework: Intro to Computer Science I & II, Data Structures and Algorithms, Intro to C and Unix, Computer Architecture, Software Engineering, Computer Networks, Intro to AI, Analysis of Algorithms, Intro to Databases

TECHNICAL SKILLS

Programming: Python, Java, C, Javascript, SQL, HTML/CSS, GLSL

Libraries & Frameworks: React.js, Node.js, Next.js, Express.js, Docker, APIs, GraphQL, Firebase, tkinter, cv2, Git, Bash

EXPERIENCE & PROJECTS

Database Migration | Sweetwater Music Center   **Aug 2023 - Dec 2023**

Front-end web portal for Purdue Fort Wayne students to rent equipment and studio rooms   Javascript | React | Airtable

- Worked in a five-member team to seamlessly migrate an Airtable database to a Baserow database using agile project management principles
- Discussed with client to assess expectations and analyzed backend API usage
- Reduced client monthly cost by **75%** without sacrificing any core functionality

Arcane Ambush   **July 2023 - Present**

Top down fighting game   Python | GLSL | Pygame

- Developed a custom game engine using Python and Pygame in order to accurately handle physics, collisions, and animations
- Effectively managed and processed data by reading from multiple JSON and CSV files, ensuring ease of use of external data sources into the game's core mechanics
- Implemented stunning visuals with the use of the GPU via GLSL while maintaining **>200** frames per second
- Gained experience with large-scale object-oriented projects

BitTube   **November 2023**

Application that converts files to YouTube video files   Python | tkinter | cv2

- Developed a program that is able to encode any file type into a video of PNGs consisting of black and white pixels extracted from the binary of the file, which is able to be retrieved from the output video
- Optimized the encoding process to hold up to **62,000,000** characters/second of video
- Created a front-end UI using the customtkinter library

PokeQuest   **January 2024 - Present**

Pokemon-inspired game created in Python   Python | Requests | Pygame

- Utilized PokeAPI to collect and format data for **300+** Pokemon configurations.
- Implemented the wave function collapse algorithm to procedurally generate an infinate number of traversable worlds
- Designed and implemented an AI trainer capable of simulating human heuristics to mimic strategic gameplay

LEADERSHIP AND INVOLVEMENT

Leadership and Involvement

Asian American Student Organizaiton | Treasurer, Board Member

- Oversaw logistics of managing a budget for a student organization as well as organizing fundraising events
- Created and fostered a community for young Asian Americans as well as those interested in learning cultural values expressed in events