

Kenny Ngo

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Education

University of Michigan

Bachelor of Science in Computer Science, Data Science, and Applied Mathematical Sciences

Ann Arbor, MI

May 2023

Projects

Discord Bot | JavaScript, NodeJS, Docker

Nov 2021 – Present

- Programmed a specialized bot with NodeJS for a few private servers to streamline experience for 50+ users
- Developed a music player with features such as stopping, shuffling, queuing, playing from URL, and search query
- Compiled and packaged code to enable moderators to run application without requiring additional installations

Wizard101 Dance Game | Python, PyAutoGUI, Tkinter

Jun 2023 – Aug 2023

- Implemented advanced computer vision arrow detection to produce an algorithm capable of capturing and automatically replaying randomized arrow sequences displayed in game with 99% accuracy
- Produced comprehensive usage documentation with direct instructions to facilitate new users in program usage

StatTrack | Python, Swift, TensorFlow Lite

Aug 2022 – Dec 2022

- Collaborated on a team of 7 developers to gather and assessed user requirements, and formulated a machine learning algorithm for detecting basketball possession and shot attempts, determining if a shot was made or missed
- Devised and built the UI, ensuring a visually appealing and user-friendly mobile interface

Facebook Clone | HTML, CSS, JavaScript, ReactJS, Python, Flask, SQL

Feb 2022 – Apr 2022

- Integrated multithreaded sockets and server sent events to create a live chat room application between 2 users
- Implemented pagination for home page with posts and chat room messages to produce an infinite scroll effect
- Built a REST API to handle 10+ simultaneous user requests while preventing vulnerable side effects

Search Engine | HTML, CSS, Python, Flash, SQL, Bash

Mar 2022 – Apr 2022

- Adapted Google's PageRank algorithm to improve search query speed by 10%, decreasing irrelevant results by 20%
- Developed a MapReduce pipeline for efficient page indexing, displayed with a user-friendly Google-styled interface

Professional Experience

Tutor

Sep 2019 – Jun 2023

University of Michigan

Ann Arbor, MI

- Tutored 4 students per semester in introductory computer science, maths, and stats courses for 4 hours per week
- Promoted effective coding practices to improve code readability and simplicity, reducing total coding time by 20% by offering hands-on guidance, code review, and collaborative paired programming sessions twice weekly

Skills

Languages: Python, C, C++, JavaScript, TypeScript, HTML, CSS, Java, SQL, Bash, R, Swift, C#, .NET

Frameworks & Tools: Git, React, NodeJS, VueJS, Flask, Docker, AWS, GCP, Figma, LaTeX, VSCode, GitHub

Extracurricular

Pickleball Coach and Volunteer

Jul 2023 – Present

- Coached 8 players from a 1.0 to 3.2 level average in pickleball by recommending drills and correcting mistakes
- Created customized practice plans to each individual, resulting strategic gameplay improvement of 55%
- Initiated and managed a competitive tournament bracket by overseeing a diverse group of 20+ participants, orchestrating match schedules, and ensuring a smooth progression of the event
- Volunteered at local Grand Rapids Pickleball Club by supporting instructors in introductory to pickleball classes and championship tournament events with over 100 participants by helping with registration logistics

Vietnamese Student Association (VSA)

Sep 2019 – Apr 2023

- Collaborated with 10 students to program stage lights for VSA's annual cultural show, supporting 15 performances
- Mentored 3 incoming VSA members in mentor/mentee program to ease transition by fostering community

Michigan Muscle Club

Sep 2019 – Mar 2020 & Jul 2022 – Apr 2023

- Volunteered as a personal trainer, providing fitness guidance and support to 5+ incoming gym goers
- Applied knowledge in exercise science and nutrition to customize a personalized workout routines for 2 mentees