

Francis Madarang

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EDUCATION

University of Waterloo

Waterloo, ON

Bachelor of Computer Science (Co-op), GPA: 4.0

Sept. 2023 – Present

- Current Coursework: Object-Oriented Programming, Data Structures (Enriched), Digital Hardware
- A+ in Functional Programming, Algorithms and Abstraction, Linux & Software Engineering Tools with C/C++

University of Toronto (St. George)

Toronto, ON

Bachelor of Science in Computer Science (Specialist), GPA: 4.0

Sept. 2022 – Present

- Dr. James A. & Connie P. Dickson Scholarship In Science & Mathematics
- Reuben Wells Leonard Scholarship
- A+ in Linear Algebra, Calculus (Proofs), Multivariable Calculus (Proofs), Foundations of CS I & II
- Dean's List Scholar

PROJECTS

AIPlay4U | C++, OpenCV, React.js, Vite.js, TailwindCSS

Dec. 2023 – Present

- Crafted a scripting language for users to make scripts that automate tasks using computer vision.
- Reinvented scratch for desktops using ElectronJS, React.js and TailwindCSS and maintained it using Jest.
- Trained 90% accurate object detection cascades for common objects using OpenCV.
- Automated 1 month of work so far.

Vid2Notes | React.js, TailwindCSS, Next.js, Django, Python

Nov. 2023

- Led a team of 4 in creating a full stack application that summarizes YouTube videos.
- Leveraged generative AI to turn video summaries into flashcards, reducing note compilation time by 70%.

Sinnoh Stores | React.js, TailwindCSS, Next.js, Django

Sept. 2023 – Oct. 2023

- Composed a mobile friendly, interactive user interface for users to browse through products using Figma, React.js and TailwindCSS
- Created an API that handles requests for retrieving and inserting data about products and carts.
- Guaranteed security of sensitive user information using encryption.

DeepPoker | Python, pygame, AI, Simulations

Mar. 2022 – Apr. 2022

- Led a team of 4 in developing an AI that makes optimal poker moves based on the current game state
- Implemented poker using pygame and a poker simulator to obtain training data for the AI
- Emulated different playstyles of poker so the AI could learn from a wide range of playstyles

EXPERIENCE

Coding Instructor

July 2022 – Sept. 2022

Code Ninjas Richmond Hill

Richmond Hill, ON

- Taught classes of up to 20 children aged 5-14 how to code in Python, Java and Lua, with a retention rate of 80%
- Architected curricula based on the varying skill levels, increasing student and parent satisfaction by 25%

SKILL SUMMARY

Languages: C/C++, Java, Python, JavaScript (TypeScript), HTML/CSS

Frameworks/Tools: Django, React.js, Vite.js, ElectronJS, Jest, TailwindCSS, Git, AWS (EC2), Apache, UNIX, Figma

Libraries: OpenCV, NumPy, Tensorflow

AWARDS

- University of Waterloo 2022 Canadian Team Math Contest - 3rd Place
- University of Waterloo 2022 Euclid Math Contest - Top 8%
- University of Waterloo 2022 Chem13 News Contest - Elemental Tile Achiever
- Highest Achiever Awards: Gr. 10-12 Computer Science, Gr. 12 Physics