Francis Madarang

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EDUCATION

University of Waterloo — Waterloo, ON
Bachelor of Computer Science — *Expected Sept. 2023 – 2027*

University of Toronto — Toronto, ON
Bachelor of Science in Computer Science (Specialist), GPA: 4.0 — *Sept. 2022 – Present*
- Reuben Wells Leonard Scholarship Recipient, Dean's List Scholar
- A+ in every Computer Science and Math course taken (100% MAT223, 95% CSC111, 94% MAT137)
- Led study groups for Computer Science and Math courses

St. Augustine Catholic High School — Markham, ON
OSSD, STEM+ Diploma, Information Technology Specialist (SHSM), GPA: 98% — *Sept. 2018 – June 2022*
- Led FTC Robotics Team to qualify for the provincial championships
- Represented school at University of Waterloo's Canadian Team Math Contest - Earned 3rd Place

EXPERIENCE

Coding Instructor — July 2022 – Sept. 2022
Code Ninjas Richmond Hill — *Markham, ON*
- Taught classes of up to 20 children aged 5-14 how to program in Python, Java, Lua and Scratch
- Architected curricula based on the varying skill levels, learning preferences and learning speeds of students

Research Assistant — July 2021
Interdisciplinary Research & Educational Services — *Markham, ON*
- Wrote a research proposal on preventing ethical issues in technology used to combat COVID-19
- Edited other research proposals centred around contemporary COVID-19 issues

PROJECTS

DeepPoker: CSC111 Project | *Python, pygame, AI, Simulations* — Feb. 2023 – Apr. 2023
- Developed an AI that makes optimal poker moves based on the current game state of a game of poker
- Implemented poker and a poker simulator to obtain training data for the AI
- Implemented different playstyles of poker so the AI could learn from a wide range of playstyles
- Created a GUI for users to play against a trained version of the AI

Scrap Fighter | *Java, SocketIO, Swing* — Dec. 2021 – Jan. 2022
- Implemented a networked street fighter game with a physics engine and hitbox detection
- Created a GUI for users to practice their mechanics, change their settings and choose their fighters
- Implemented a desync system to ensure the host does not have a competitive advantage over client

AWARDS

Math and Science 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

Assorted Awards
- DECA Provincial Representative
- Toastmaster Speechcraft Contest - 2nd Place

TECHNICAL SKILLS

Languages: Java, Python, C++, SQLite, JavaScript, HTML/CSS, Apache
Frameworks: Django, Node.js, Flask, Swing
Developer Tools: Git, Amazon Web Services, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Libraries: pandas, NumPy, plotly