

Siddharth Iyer

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EDUCATION

University of Toronto

Sept 2023 - June 2027

Honors Bachelor of Science - Computer Science

Mississauga, ON

- Relevant Courses: Software Design, Theory and Computation, and Data Structures and Algorithms
- Regular participant and contributor to the Mathematics and Computer Science societies. (MCSS, CSSC)

PROJECTS

Pathway AI Tool | *Next.js, HTML, CSS, Javascript, Typescript, AI, LLMs, UI/UX, Chromadb, Git* February 2025

- Developed a tool with a group of peers to help students find courses based on inputted prompts
- Used **Python web-scraping** with BeautifulSoup to scrape a university website for course information
- Implemented an **AI model with OpenAI framework** and **engineered prompts** to decipher web-scraped data
- Utilized an **embeddings model with Chromadb** deciphering user prompts to output valid information
- Improved efficiency by reducing course search time by an estimated **70%** compared to manual browsing

Othello Game | *Java, IntelliJ, Maven, OOP, Algorithm Design, Git*

August 2024 – October 2024

- Developed an interactive Othello/Reversi board game set on the console
- Created a **random CPU and greedy CPU**, for different play styles allowing diverse gameplay
- Optimized overall runtime to **below 7 seconds** while running **10000 random games**

Collaborative Paint Program | *Java, IntelliJ, Maven, GUI, Scrum, Git*

September 2024 – November 2024

- Developed a Paint program from scratch collaboratively, with an **agile scrum** framework and **git** version control
- Utilized several **object-oriented design patterns** (MVC, Observer, Strategy, Command) to create dynamic and reliable functions (Color Palette, Undo/Redo, Pen and Shapes, and File/Edit menus)
- Enhanced user interface with **JavaFX** for overall use of **GUI** design

2D Free-Move RPG | *C#, Unity, Pixel Art, .NET, Git*

September 2021 – June 2022

- Developed a 2D birds-eye view, animated, RPG to learn about game development mechanics
- Utilized Unity's **Tilemap Editor** to design interactive 2D environments with **layered assets**
- Employed **Unity's Animator** to make smooth transitions between character states, locations, and gameplay
- Increased frame rate and texture **optimization by 32%** through use of design mechanics

2D Pathfinder RPG | *C# Unity, AI Pathfinding, .NET, Git*

September 2022 – April 2023

- Programmed a **custom pathfinding algorithm** based on complex templates
- Developed character movement and collision mechanics using **Unity's Rigidbody2D and Physics System**
- Implemented dynamic camera control to track user movements on a noded grid.

EXPERIENCE

President

September 2024 – Present

UTM Esports | Student Groups Link

Mississauga, ON

- Led a team of experienced executives to host large community events.
- Communicated with several sponsors and organizations for collaboration. (**UTLA, Playfly Esports, NECC**)
- Managed and mentored content creation team for personalized club content posted on social media
- Increased average participation of events by **200%** resulting in a **50% increase in funding** from the UTMSU

Lifeguard

June 2022 – September 2022

Pro Recreation Management

Mississauga, ON

- Prioritized safety through problem-solving, making sure all swimmers were aware of the risks and swam safely
- Monitored and maintained pool pump and pool chemicals with precision and attention
- Maintained organized log of activities throughout every hour of the day
- Communicated effectively with peers and supervisors in high-pressure situations

TECHNICAL SKILLS

Languages: Java, Python, C/C++, C#, SQL, NoSQL, Assembly

Frameworks: JUnit, FastAPI, MySQL, .NET, NumPy, Pygame, Matplotlib

Developer Tools: Git, Vim, Visual Studio, PyCharm, IntelliJ, Godot, Unity, Unreal