

Avneet Singh Nijjer

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 [Avneet Singh Nijjer](#) |  [avneetnijjer](#)

Brampton, Ontario - L6X5N6, Canada

EDUCATION

• McMaster University

Engineering (B.Eng) - CO-OP

September 2024 - April 2028 (Expected)

Hamilton, Ontario

- Relevant Coursework: Linear Algebra, Design & Projects in Engineering, Principles of Programming, Logic Design, Circuit Analysis, Artificial Intelligence - Innovative Technologies,

PROJECTS

• Jarvis: AI Voice Assistant

December 2024 - February 2025

Tools: Python, OpenCV, YOLO, SpeechRecognition, BeautifulSoup, LangChain, TTS, NumPy, CV2, Ollama



- Built an interactive AI assistant combining real-time speech recognition, natural language processing, and computer vision.
- Integrated YOLO-based object detection with contextual explanations via a LangChain Ollama AI Model.
- Designed a modular system supporting dynamic command handling, web searches, and alarm setting.

• Personal Portfolio

October 2024 - December 2024

Tools: TypeScript, Next, React, TailwindCSS, JavaScript, Firebase, Git



- Designed and developed a fully responsive personal portfolio website using Next.js, React.js, and TailwindCSS, optimizing for both desktop and mobile experiences
- Implemented dynamic routing and efficient state management to showcase projects, skills, and professional achievements seamlessly.
- Leveraged TypeScript and Git for robust code structure and version control, ensuring maintainability and scalability of the project.

• Boggle

December 2024 - February 2025

Tools: Java



- Designed and implemented a fully functional Boggle word game in Java, incorporating object-oriented programming principles.
- Developed an efficient algorithm and binary search tree to generate randomized letter grids and validate word formations using a dictionary dataset.
- Multiple array's and array tracking to add functionality like undo, timer and more

EXPERIENCE

• Toronto District School Board

September 2023 - June 2024

Coding Instructor

Etobicoke, Ontario

- Designed comprehensive instructional materials and lesson plans for coding courses.
- Taught student's foundational concepts in programming languages, including Java, Python, and Scratch.
- Demonstrated the use of various coding-related software applications.
- Provided technical support and troubleshooting assistance to students during class sessions.

SKILLS

- **Programming Languages:** Python, C/C++, HTML/CSS, JavaScript, TypeScript, MATLAB, LaTeX
- **Frameworks/Libraries:** Next, React, TailwindCSS, numPy, OpenCV, YOLO, Text-to-Speech, LangChain
- **Hardware:** Arduino, Quanser Technologies, Lego Robotics, Microcontrollers
- **Tools:** GitHub, Git, Figma, VS Code, MatLab, Microsoft Office (Excel, Teams, Outlook, Word, PowerPoint), AnsysGranta, AutoCAD, PrusaSlicer, MacOS, Windows, Linux
- **Certifications/Training:** WHMIS 2015, First Aid & CPR/AED (Level C), National Lifeguard, Ontario G-Class License