

Jayant Varma

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Profile summary and academic achievements

A well-organized, innovative, and self-motivated 3rd year Computer Science student with:

- York University International Scholarship of Merit 2021
- Strong academic foundation in Data structures: Recipient of EECS 2011 Learning Excellence award fall'22 (Course Grade A) 2022
- Strong academic foundation in Design and analysis of algorithms: Two-time recipient of EECS 3101 Learning Excellence award Winter'23 (Course Grade A) 2023
- Strong developing and debugging skills in multiple systems software, artificial intelligence, especially using C and Java

Education

Expected 2024

York University

Toronto, ON

Honours, Bachelor of Science in Computer Science – Overall GPA 3.3 out of 4

Relevant Courses: Advanced data structures, Software Design (SDLC: SOLID principles, design patterns, architectures, microservices and testing), **Design and analysis of algorithms**, **Operating systems**, **Computer Organization**, Software tools, **Advanced OOP**, discrete mathematics, theory of computation, professional practices in computing, web and app development.

Projects

ARTIFICIALLY INTELLIGENT TEACHING ASSISTANT | PYTHON, JAVASCRIPT, HTML/CSS April 2023-April 2023

- A [Treasure Hacks](#) hackathon project in which the teaching assistant does the following **natural language processing** tasks:
 - Summarize the submitted pdf document inputted by the student (user)
 - Chat with the student (user) regarding the uploaded document in a question and answers session
- Developed with use of chat GPT API in python, implemented frontend with JavaScript, HTML/CSS, node.js
- Deployed a fully functioning website using nginx. Devpost [link](#)

EASY-ESTATES | JAVA, MYSQL, JAVA-SWING

January 2023 - April 2023

- Developed a group project that finds most affordable (in relative terms) housing location in Canada based on Statistics Canada data on New Housing Price Index from January 1981 to December 2022.
- Implemented future prediction of pricing of the selected location's housing for the next inputted number of months using WEKA Machine Learning library, analytical comparison of two locations using apache math commons API and is based on MVC software architecture.
- Implemented the application using MySql for storing raw data from Statistics Canada, JFreeChart for visualizations/graph plotting, and Java Swing for GUI.

SPACE INVADERS GAME | C

November 2022 - January 2023

- Developed using **Posix Pthreads** and semaphores for **parallel implementation** in C
- Exhibits **real time interaction** and uses independent threads to show constant animation

ARTIFICIALLY INTELLIGENT Tic-Tac-Toe | C

April - May 2022

- Operates in single player (versus computer) or multiplayer modes
- Implemented future prediction of human moves by the computer program using novel greedy exhaustive search algorithm

Experience and Activities

- Class representative | Bethune College January 2023 – March 2023
 - Organized and conducted study sessions and surveys for Math course, Applied Linear Algebra
- [UNHack](#) 2022 Hackathon | **Team Leader** November 2022
 - Developed the design of an app that promotes healthy habits among students.
 - Displayed leadership, teamwork, and planning skills
- Software group in the CubeSat making club at York University, L.A.S.S.A.T | Member June 2021 –January 2023
 - Helped debug code in C, python for the 'Selfie-Sat' cube-satellite.
- Reading group of Math club at York University, Club Infinity| Member June 2021 - Present
- Intramurals Men's Open Tennis tournament runner up September 2022
- Active guitarist, achieved Trinity College London grade 5 in plectrum guitar February 2019

Technical Skills

Programming Languages: C, Java, Javascript, HTML/CSS, shell programming, python, MySql, Assembly (RISC-V), Verilog

Platform: Windows, Unix, Linux, Posix, MS-Office

Development Tools: Eclipse, Maven, J-Unit, VS-Code, jQuery, Node.js, git/github, Ubuntu, Cygwin, gcc-compiler, gdb debugger
Apache Math Commons, WEKA Machine Learning library, MySql, Java Swing, J-freeChart, chatGPT 3.5 api