

Roshan. Munjal

✉ r2munjal@edu.uwaterloo.ca 🏠 rmunjal.me 📺 roshan2M 🌐 roshan2M

Skills

LANGUAGES TOOLS

Proficient: Java, Python | *Competent:* JavaScript, HTML5//CSS3, Racket | *Familiar:* C, MATLAB//Octave

Libs: NodeJS, libGDX, Keras, Scikit-Learn | *Tools:* Git, GitHub, TeX, Atom, Ubuntu | *Frameworks:* Bootstrap, LUIS, Unity

Projects

CHESSE GAME & ENGINE 🔄

PERSONAL

Aug. 2017 - Present

- Currently implementing a chess game & engine in Java. Analyzes previous games using the Minimax algorithm.
- Uses object-oriented principles including classes for the board, engine and GUI, and abstraction for pieces, moves and other features.

DESTIN 🔄

Toronto, ON

GLOBAL AI HACKATHON

Jul. 2017

- Developed a chat-bot that responds to queries about different locations around the world in a team of 6. Utilized Microsoft's LUIS (language processing) API and integrated components in JavaScript using NodeJS.
- Presented chat-bot project idea using the Microsoft Bot Framework Emulator to ~40 people and earned 2nd place at the Global AI Hackathon in Toronto.

DUNGEON CRAWLER GAME 🔄

PERSONAL

May. 2017 - Jun. 2017

- Developed a simplified version of the indie game "Enter the Gungeon" in Java. Used the physics engine in libGDX to implement collisions between the player and obstacles.
- Used classes and inheritance to implement the player, enemies and ground pick-up items such as coins.

Activities

WATERLOO STARTERHACKS

Waterloo, ON

SOFTWARE DEVELOPER

Jan. 2018 - Present

- Organizing a hackathon for 250+ people in March 2018 to help first-time hackers gain experience coding, designing and pitching ideas.

WATERLOO SAILBOT 🔄

Waterloo, ON

CONTROLS TEAM MEMBER

Oct. 2017 - Present

- Tested deep learning frameworks to use with compatibility in ROS and the on-board Jetson hardware. Presented on benefits and drawbacks of the frameworks to a team of 15.
- Implementing a classifier to detect an orange buoy in an image using transfer learning on the pretrained Inception model in Python.

FIRST ROBOTICS

Mississauga, ON

STRATEGY LEAD

Oct. 2016 - May. 2017

- As a strategy lead, led a team of 5 to effectively collect/parse data on other teams using scouting sheets and the FRC Krawler app. Made strategic decisions based on analysis using Excel.
- Learned fundamentals of programming the robot in the FRC WPI library and how sensors relay data to and from the RoboRIO.
- Attained 7 awards in Regional and Provincial events and qualified for the *FIRST* World Championship in Rookie year.

CHESSE TEAM & CLUB

Mississauga, ON

PRESIDENT

Sep. 2013 - May. 2017

- Led high school chess club and team. Helped improve players' skills through weekly games and chess exercises.
- Participated in several tournaments in the PEEL region and won 1st place in the PEEL Team Chess Tournament 2013.

Honours

2017	Len Richardson Award , Awarded to one student displaying great passion for science & innovation.	Mississauga, ON
2017	FIRST Rookie Inspiration Award , Celebrates a rookie team's outstanding success in advancing appreciation for engineering, both in their school and in their communities.	Toronto, ON
2017	Faculty of Mathematics Scholarship , Awarded to outstanding students entering the Math Faculty.	Waterloo, ON
2015 - 2017	Mathematics Contests , Achieved top 5% in the Fermat/Hypatia/Cayley Waterloo Math Contests.	Waterloo, ON

Education

University of Waterloo

Waterloo, ON

CANDIDATE | BACHELOR OF COMPUTER SCIENCE (CO-OP)

2017 - Present

- Taking additional courses and planning to pursue the Joint Statistics Major. (Current GPA: 3.94)
- *Online coursework:* **Machine Learning** (Stanford, Coursera) and **Introduction to CS using Python** (MITx, edX).