Roshan. **Munjal**

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Languages

LANGUAGES	*Proficient:* Java, Python	*Competent:* JavaScript, HTML5//CSS3, Racket	*Familiar:* C, MATLAB//Octave
TOOLS	*Libs:* NodeJS, libGDX, Keras, Scikit-Learn	*Tools:* Git, GitHub, LaTeX, Atom, Ubuntu	*Frameworks:* Bootstrap, LUIS, Unity

Projects

CHESS 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.

CHESS 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 & Awards

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).