

# Nicolas Martalog

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## Skills

<b>Programming</b>	Python, C/C++, C#, Java, HTML/CSS, JavaScript, Typescript, R
<b>Platforms/Technologies</b>	Node.js, SQL, MySQL, MSSQL, Git, Nest.js, Angular, Unity, Jira, Linux
<b>Machine Learning</b>	Tensorflow, NLTK, pandas, GNU Octave
<b>Interpersonal Communication</b>	Experienced and comfortable working in a team and a fast paced environment.

## Experience

### Full-Stack Developer, Intern

Mississauga, Ontario

UPTAKE

Sept. 2021 - Dec. 2021

- Implemented new feature development towards the middle-tier, back-end code, and user-interface for the CAT dealer business application using **Typescript** in a **Nest.js** framework.
- Decreased customer search response time in Service Agreement Quoter application by +50% using flattening operators.
- Added additional front-end and back-end components in CloudLink's Service Agreement Quoter application in an **Angular** web framework and improved documented defects for application enchantment.

### C#/C++ Developer

Burlington, Ontario

FREELANCE

Sept. 2020 - Feb. 2021

- Modified existing **C#** and **C++** code to correct logical errors and improve readability.
- Implemented game mechanics (player motion and collision detection) for custom player movement.
- Enhanced player effects in **Unity** using Unity's pre-existing particle system and improved performance under heavy load by +60%.

### Math Tutor

Burlington, Ontario

OXFORD LEARNING

Sept. 2018 - March. 2020

- Tutored students in Mathematics from kindergarten to grade 12.
- Exercised leadership qualities while Identifying learning issues and helping students understand lesson content. (**Leadership**)
- Garnered positive feedback from many students particularly concerning oral communication skills whilst explaining topics. (**Effective Communication**)

## Projects

### Zurvival

[HTTPS://GITHUB.COM/NICOLASMARTALOG/ZURVIVAL-OCULUS-QUEST-GAME-](https://github.com/NicolasMartalog/Zurvival-Oculus-Quest-Game-)

- Developed a VR zombie survival game for the Oculus Quest using **Unity** and **C#**. Over +35k game visits
- Initialized Oculus XR Plugin and profiled workflow to address a fragment GPU bound app and improved performance by +40%.

### VR Multiplayer Party

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=JZCDRYEPjHI&t=2s&ab\\_channel=NICOLASMARTALOG](https://www.youtube.com/watch?v=JZCDRYEPjHI&t=2s&ab_channel=NicolasMartalog)

- Built an online virtual world platform for the Oculus Quest using **Unity**, **C#** and **Javascript**.
- Implemented voice chat and player interaction in recreational spaces with a datastore.

### Chatbot

[HTTPS://GITHUB.COM/NICOLASMARTALOG/CHATBOT](https://github.com/NicolasMartalog/ChatBot)

- Created an AI Chatbot using **Python**, **Tensorflow**, and **nlTK** used for answering questions.
- Developed and trained a model to make predictions on user inputs to find most likely class and outputs a response from that class.

## Education

### University of Waterloo

Waterloo, Ontario

CANDIDATE FOR BACHELOR OF MATHEMATICS (B.MATH) COMPUTATIONAL

Sept. 2020 - Present

- Earned President's Scholarship of Distinction Award. (students who had an admission average of 95% or greater)
- Member of University of Waterloo's Data Science Club, Computer Science Club, UWVR.

### Stanford University

MACHINE LEARNING CERTIFICATE

Nov. 2021

- Evaluated Supervised/Unsupervised learning models, recommender systems, deep learning concepts, kernels and neural networks.
- Machine Learning done with **Octave**.

### IBM

BLOCKCHAIN ESSENTIALS CERTIFICATE

Nov. 2021

- Assessed distributed ledger systems in a business environment, asset transferring in blockchain networks and IBM blockchain strategy.