Nicolas **Martalog**

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Skills

Languages	Python, C/C++, C#, Java, HTML/CSS, JavaScript, Typescript, Processing, R
Platforms/Tools	Node.js, SQL, MySql, MSSQL, Git, Nest.js, Angular, React, Unity, Jira, Linux
Machine Learning	Tensorflow, NLTK, pandas, OpenCV, PyTorch

Experience

Software Developer Analyst Intern *Toronto, Ontario*

BMO FINANCIAL GROUP *May. 2022 - Aug. 2022*

- Automated and implemented full stack admin control functionality for Capital Markets internal bankers expense app used by 2000+ employees using **ASP.NET**, **JavaScript**, **HTML** and **MySQL** in a **React** framework.
- Developed 3 API system applications using **C#** and .NET framework for back-end databases and improved loading speed by **+30%**.
- Integrated 4 tables using Microsoft SQL Server Database to assist in financial analyses.

Director Of Technology *Waterloo, Ontario*

UNIVERSITY OF WATERLOO VR/AR CLUB *Jan. 2022 - May 2022*

- Managed club's Github and developed a term-long VR project using **Unity** and **C#**.
- Researched different VR/AR-related applications and hosted tech seminars/podcasts.

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 dealer business application using **Typescript** in a **Nest.js** framework.
- Improved customer search response time in Service Agreement application by **+50%** using flattening operators.
- Added additional front-end and back-end components in CloudLink's Service Agreement application in an **Angular** web framework and improved documented defects for application enchantment.

Projects

MarAI

HTTPS://GITHUB.COM/NicolasMartalog/MarAI

- Created a reinforcement learning model in **Python** to complete Super Mario Bros.' levels efficiently.
- Used Proximal Policy Optimization with Generalized Advantage Estimation to increase training speed by **+95%**.

Zurvival

HTTPS://GITHUB.COM/NicolasMartalog/Zurvival-Oculus-Quest-Game-

- Developed an open world VR zombie survival game for the Oculus Quest using **Unity** and **C#**. **+54,000 game visits**
- Initialized Oculus XR Plugin and profiled workflow to address a fragment GPU bound app and improved performance by **+40%**.

Housing Buddy (Hack The North 2021)

HTTPS://GITHUB.COM/HGUO02/housing-buddy-HTN

- Created a web app using **HTML/CSS** with a team of 4 for students to help streamline the process of finding off-campus housing.
- Used **Firebase** to manage user accounts and Google Maps API for mappings of all listings in the area.

VR Multiplayer Party

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.

Education

University of Waterloo *Waterloo, Ontario*

CANDIDATE FOR BACHELOR OF MATHEMATICS (COMPUTATION MAJOR) *Sept. 2020 - Present*

- Earned President's Scholarship of Distinction Award. (students who had an admission average of 95% or greater)
- Relevant Coursework: Object-Oriented Software Development, Algorithm Design and Data Abstraction, Logic and Computation

Stanford University

MACHINE LEARNING CERTIFICATE *Sept. 2021 - Nov. 2021*

- Evaluated Supervised/Unsupervised learning models, recommender systems, deep learning concepts, kernels and neural networks.