Justin Nitoi

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EDUCATION

University of Waterloo, Ontario *Sep 2024 - Present*
Bachelors of Computer Science
- Average of **96%** in Math and Computer Science courses.

EXPERIENCE

AI Researcher *Remote*
Story City *Jun 2025 - Aug 2025*

- Researched and prototyped **3 AI-powered features** for Story City's location-based storytelling platform: a visual storyboard generator, a story duration estimator, and a social media content creator.
- Provided implementation details for a storyboard graph generator that reduced storyboard creation time by **40%** and improved the accuracy of story duration predictions to within **±5 minutes** on average routes.
- Evaluated Azure and AWS cloud solutions for scalability and cost-effectiveness, recommending serverless architectures such as AWS Lambda and Azure Functions, achieving potential cost reductions of **50%**.
- Delivered a technical report and presentation that influenced the development of **2 upcoming product features**.

Assistant Teacher *Toronto*
Spirit of Math Schools at Don Mills *Sep 2022 - Jun 2024*

- Boosted class graduation rate by **10%** by coaching struggling students and improving student confidence.
- Created a seamless learning environment through efficient organization of classroom activities.

PROJECTS

NameNet | Python *Jun 2025 - Aug 2025*
- Trained models on two name datasets (**1.5k** and **40k** samples) and analyzed model performance across varying data sizes.
- Identified and corrected label inconsistencies in large dataset, significantly improving model accuracy to **99%+** on validation data.
- Integrated the trained models in **WebMessenger** to assist with user account creation.

WebMessenger | Python, Javascript, SQL *Apr 2025 - May 2025*
- Developed a **private messaging web application** using Python flask and SQL for back-end and javascript, HTML for front-end.
- Used SQLite for the website database, designed SQL queries to update user info and messages. Developed an interface for the database to abstract the inner workings.

Neural Network for Digit Recognition | Python *Jan 2025 - Feb 2025*
- Developed and trained a neural network for **classifying handwritten digits**.
- Implemented forward propagation, backpropagation, and gradient descent to train the model on the MNIST dataset (28x28 pixel images of handwritten digits) leading to **97%+** training accuracy.

SKILLS

Programming Languages: Python (PyTorch, Numpy, Pandas), C++, JavaScript, HTML, SQL

Soft Skills: Communication, Teamwork

Certifications: Azure Fundamentals, Azure AI Fundamentals

Awards: Euclid Honour roll, Qualified for AIME, Recipient of the President's Scholarship of Distinction