# Aditya Prasad

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#### EDUCATION

#### University of Waterloo

Waterloo, Ontario, Canada

Bachelors of Software Engineering + AI & Human-Computer Interaction Option

Sept. 2024 - Apr 2029

- Presidents Scholarship with Distinction \$5,000
- FIRST Alumni Scholarship \$15,000, 1 of 2 Recipients in Engineering Faculty
- Grade Point Average: 94.6% (3.98)
- Relevant Courses: Digital Computation, Data Abstraction & Implementation, Digital Circuits, Linear Algebra

## TECHNICAL SKILLS

**Languages**: Python, C/C++, HTML/CSS, JavaScript, Java, VHDL **Frameworks**: React, PyTorch, Tailwind, Next, OpenCV, RobotC

Developer Tools: Visual Studio, DEV C++, PyCharm, Heroku, Git, Powershell, HuggingFace, AutoCAD, SolidWorks,

### TECHNICAL EXPERIENCE

#### AI Engineering Intern | Python, HuggingFace

Aug. 2024 – Present

Preamble AI

Pittsburgh, Pennsylvania, USA

- Developed 2 enterprise application integration prototypes, demonstrating 40% improvement in workflow efficiency.
- Conducted market research on 5 AI safety trends, developing 2 proof-of-concept use cases with 90% feasibility.
- Created 20+ test cases and identified 15+ critical bugs, improving platform stability by 25%.
- Built a private **Huggingface** Space demonstrating AI safety features, improving model robustness by 20%.
- Updated 10+ user guides and API docs, improving clarity and accuracy by 30%.

# Robotics Instructor | Python, C |

Sep. 2022 – Aug. 2024

Code Ninjas Brampton SW

Brampton, Ontario, Canada

- Taught software and mechanical principles to 50+ students, while developing a customized robotics curriculum.
- Improved student success by 30% through personalized instruction, adapting content to individual learning styles.
- Communicated with 10+ parents monthly to track progress and ensure 90%.
- Promoted services to walk-in customers, contributing to a 15% increase in client retention and enrollment.

#### Co-founder

Aug. 2020 – Present

6ixheat

Missisauga, Ontario, Canada

- Co-founded local sneaker and clothing resale business generating a total of \$80,000, \$18,000 annually.
- Effectively handled in-person and virtual interactions with 95% customer satisfaction.
- Helped communicate with clients and drive sales resulting in 50+ positive reviews and 100+ smooth transactions.

# Projects

# Feedforward Neural Network | C++, Git

- Developed a neural network in C++ to solve the XOR problem with 97% accuracy using backpropagation.
- Trained the model with a 500 iterations, applying gradient descent and sigmoid activation.

BehaViewer - Newhacks 2024 | Python, JavaScript (React), HTML/CSS (Tailwind), Heroku, Git

- Built a full-stack application with **React** and **Python**, analyzing customer data to **improve retention by 30%**.
- Reduced data pipeline runtime by 25%, enabling scalable predictive analytics for loyalty metrics.
- Presented findings to TELUS executives, demonstrating real-world impact on customer retention strategies.

#### Robotic Exoskeleton Arm | C, Lego EV3, Git

- Engineered a functional exoskeleton hand achieving 95% accuracy in gripping, lifting, and precision tasks.
- Optimized motor outputs to control five individual fingers, enhancing joint-level dexterity by 40%.
- Programmed motor motions in **RobotC** to lift objects weighing up to **1kg** with precise control.
- Currently programming motion patterns for **ASL** signs, with potential for future speech-to-movement integration.