Aditya Prasad

(416) 994-7047 | aditya.prasad@uwaterloo.ca | linkedin.com/in/adiprasadd | github.com/adiprasadd | adiprasadd.xyz

EDUCATION

University of Waterloo   Waterloo, Ontario, Canada
Bachelors of Applied Science, in Mechatronics Engineering + AI & Biomechanics Option   *Sept. 2024 – May 2029*
- Presidents Scholarship with Distinction - $5,000
- FIRST Alumni Scholarship - $15,000, One of 2 Recipients in Engineering Faculty
- Grade Point Average: 94.6% (3.98)
- Relevant Courses: Digital Computation, Data Structures and Algorithms, Calculus 1 & 2, Linear Algebra

TECHNICAL SKILLS

Languages: Python, C/C++, HTML/CSS, JavaScript, Java
Non-Technical Languages: English, French
Frameworks: React, PyTorch, Tailwind, Next, OpenCV, RobotC
Developer Tools: AutoCAD, SolidWorks, Visual Studio, DEV C++, PyCharm, Heroku, Git, Powershell, HuggingFace
Soft-Skills: Leadership, Written Communication, Oral Presentation, Collaboration, Problem-Solving

TECHNICAL EXPERIENCE

Artificial Intelligence Research Intern   Aug. 2024 – Present
Preamble AI   *Pittsburgh, Pennsylvania, United States of America — Remote*
- Updated **10+ user guides and API docs**, improving clarity and accuracy by **30%**.
- 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%**.
- Developed **2** enterprise application integration prototypes, demonstrating **40%** improvement in workflow efficiency.
- Built a private **Huggingface** Space demonstrating AI safety features, improving model robustness by **20%**.

Robotics Instructor   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

BehaViewer - Newhacks 2024 | *Python, JavaScript (React), HTML/CSS (Tailwind), Heroku, Git*   Oct 2024
- 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++ (RobotC), Lego EV3*   Dec. 2023 – Jan. 2024/Jan 2025
- 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.

Feedforward Neural Network | *C++, Git*   Jan. 2025
- 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**.