### **Harshit Malik**

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#### **EMPLOYMENT**

# Software Engineer, Intern

## Neurocage Systems Ltd.

January 2022-August 2022

- Developed a backend project utilizing computer vision and machine learning in Python for the analysis
  of mouse behavior.
- Created a motion tracking system to assess rodent health.
- Enhanced and maintained the company's website for veterinarians using Python Flask, HTML, and JavaScript, resolving existing issues.
- Implemented a user feedback form on the website, connecting it to GitHub Actions for immediate developer access.

#### **EDUCATION**

## Edmonton, AB, Canada

## **University of Alberta**

Fall 2019 - May 2024

• Currently pursuing a bachelor's degree in software engineering co-op

### **TECHNICAL EXPERIENCE**

### **Projects**

OpenAl Project Idea Generator and Resource Finder | Jan 23

- Created a web application that leverages the **OpenAl Davinci model and Reactjs** for generating project ideas and providing corresponding resources through links.
- Utilized user input parameters such as coding languages, project type, team size, experience, and desired number of ideas to generate a dynamic list of project suggestions.
- Enabled users to select a project idea and receive a customized list of resources generated by the OpenAI model.

### Online Connect4 and Toot/Otto Game Simulation | Apr 23

- Developed a web-based simulation of Connect4 and Toot/Otto games, allowing users to play against human opponents or a CPU using **Rust, MongoDB and REST API**.
- Implemented a database for tracking scores, leaderboard rankings, and game history.
- Utilized **Rust and Javascript** for backend/frontend development and **MongoDB** for storing game data, enhancing the overall user experience and game performance.

## Client-Server Networking | Nov 22

 Developed a C++ program simulating client-server communication using pipes, networking in C++, TCP/IP, and multithreading for concurrent message transmission from multiple clients to a server program.

#### **ADDITIONAL EXPERIENCE AND AWARDS**

- Served as a Peer Tutor for Lister Center at the University of Alberta, providing academic assistance to fellow students.
- · Participated in Project Citizen National Showcasing, teaching basic math and English to underprivileged children.
- Contributed to the You Read They Learn Initiative, promoting book donations to support the education of underprivileged children.
- Achieved qualification for the national level of National Science Concours, demonstrating excellence in scientific knowledge.
- Received 4 top 3 medals for International Mathematics and Cyber Olympiads, showcasing strong problem-solving and analytical skills.

## **Languages and Technologies**

- C, C++, Java, Rust, JavaScript, MySQL, SQLite, OpenCV, Reactjs, Flask, Python, ARMv-7, MATLAB, HTML.
- · VMware, Networking TCP/IP, AWS, PowerShell, Git, Circuit Designing, Android Studio, node.js, VHDL.