Yuvraj Singh Birdi

+1 (519) 288-5576 | [Email](#) | [Linkedin](#) | [Github](#) | [Gitlab](#)

TECHNICAL SKILLS

Languages: Python, C++, Java, HTML/CSS, MysQl, Bash and Fish
Developer Tools: Github, Gitlab, The Intellij Suite, VS Code, Emacs, Neovim, Alacritty, Docker, MySQL etc

PROJECTS

Fitris | *React.JS, Mediapipe, OpenCV, Flask, WebSockets, Git*   June 2024
- Developed an innovative game that helps transform exercise routines by integrating them with the Tetris
- Developed a Flask-based backend to facilitate real-time communication between the React.js frontend and the OpenCV model using WebSockets, achieving 0% packet loss
- Addressed the challenge of boredom in exercise routines by creating an engaging solution for users by keeping them entertained while their achieving fitness goals
- 3rd Place Winner of Jamhacks 8 [DoraHacks](#)

Arch Linux Installer | *Shell, Git*   September 2023
- Built a custom installation script to automate the setup of Arch Linux with personalized configurations
- Including configurations for my window manager (dwm with extensive patching), and other software tools
- Simplified the reinstallation process, saving hours during system setups [Github](#)

The Animal Monitoring Association | *Django, pytorch, matplotlib, numpy, pandas, Git*   June 2023
- Created AMA an AI-powered web app utilizing audio classification to identify and warn travelers about dangerous animals in wildlife areas.
- Used PyTorch to pre-process and augment over 1000 audio files, extracting spectrogram features for input into a multi-layered CNN and linear classifier model, resulting in highly accurate animal sound detection.
- Overcame challenges in processing multilingual and unorganized audio data, achieving impressive accuracy through state-of-the-art audio processing and augmentation techniques.
- Submitted to WaffleHacks 2023 [Devpost](#)

JampJaxs | *Python (Mediapipe, OpenCV), Gardot, Git*   June 2023
- Created "JampJaxs" video game, Which merges Cookie Clicker's progression with exercise tracking using webcam and Google's Media Pipeline.
- Developed Python ML backend for exercise detection and integrated it with Godot Engine 4.0 UI using UDP packets.
- Implemented landmark analysis to accurately identify jumping jacks, squats, and high knees for in-game rewards.
- Submitted to Jamhacks 7 [Devpost](#)

WORK EXPERIENCE

Gurdwara Langar Hall Seva   May 2023 – Present
Guru Nanak Mission Centre   *13 Guru Nanak St, Brampton*
- Assisted in the preparation and distribution of langar (free community meals) to visitors and devotees of the Gurudwara.
- Collaborated with a diverse team of volunteers to maintain a smooth and efficient operation during langar service hours.

World Financial Group (WFG) Training Volunteer   June 2023 – Present
Wold Financial Group   *Branch: 100 Milverton Drive, Mississauga*
- Assisted in organizing and facilitating training sessions for associates and trainees of World Financial Group (WFG).
- Attended and conducted workshops and group activities to enhance participants' understanding of financial products, services, and industry regulations.

EDUCATION

University of Waterloo   Waterloo, Ontario
Bachelor of Applied Science - BASc, Computer Engineering   *September 2024 – 2029*

Louis Arbour SS   Brampton, Ontario
Ontario Secondary School Diploma (OSSD)   *February 2023 – June 2024*