Carlos Serrouya

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Relevant Work Experience and Personal Projects

Data Science Intern
Alberta Biodiversity Monitoring Institute   2023

- Developed machine learning models to identify snow depth and coverage in camera trap images.

- Utilized Keras/TensorFlow and scikit-learn to implement semantic segmentation models using U-net, linear models using neural networks (NN) and regressions, and classification models using transfer learning and random forests.

- Optimized image processing using NumPy and Pillow, and minimized RAM and VRAM usage during model training.

- Created algorithms for object contouring, object detection, and outlier detection. Employed Pandas to manage, edit, and read large datasets.

- Presented results to a biology and ecology panel, communicating technical machine learning concepts to a non-technical audience.

- Achieved 84% accuracy in identifying snow measuring sticks and 96% accuracy in classifying snow coverage.

- Currently working towards publication and production via command line on a server.

Personal Project: NFL Score Prediction Model   2023

- Used BeautifulSoup for web scraping sports stats websites to gather data.

- Developed a predictive model for NFL game outcomes using a compiled dataset.

Personal Project: Stock Market Dataset   2022

- Used yfinance to compile live datasets in Excel for use in machine learning models.

Education

University of Calgary		Coursera	
BSc Computer Science	2022-Present	*Advanced Learning Algorithms*	2023
BSc Mathematics	2021-Present	*Regression & Classification*	2023

Other Work Experience & Volunteering

Server/Bartender/Host
Village Idiot Bar and Grill   2016-2022

- Worked in a high-paced environment, handled customer interactions, and managed cash transactions.

- Operated as part of a team, handling thousands of dollars each shift.

Basketball Coach   2019-2021

- Volunteered to coach U13 basketball team while serving as the varsity team captain.

- Organized drills, coached games, and led practices.

- Awarded the Terry Bidel award for community athletic leadership and achievement.