

Carlos Serrouya

Calgary — www.linkedin.com/in/carlos-serrouya-27053b276 — carlos.serrouya@ucalgary.ca —
250-837-1041

WORK EXPERIENCE AND PERSONAL PROJECTS

Data Science Intern	<i>Alberta Biodiversity Monitoring Institute</i>	2023-2024
<ul style="list-style-type: none">• Developed machine learning models for animal detection, snow depth, and snow coverage in camera trap images.• Implemented U-Net neural network, transfer learning, multiple regression, and random forests models using Keras/TensorFlow and Scikit-learn.• Optimized image processing with NumPy/Pillow, reducing RAM and VRAM usage during training.• Created object contouring, detection, and outlier detection algorithms.• Managed large datasets with Pandas and SQL, integrated multiple regression models into SQL functions.• Presented machine learning results to a non-technical panel, achieving 84% snow depth accuracy and 96% coverage classification.• Reduced false positives in Microsoft's Megadetector by 72%, false negatives by 9%.• Visualized model performance data with Matplotlib and Seaborn.• Automated image/audio conversion on Linux servers, reducing file sizes for backup.		
Personal Project	<i>NFL Score Prediction Model</i>	2023
<ul style="list-style-type: none">• Used BeautifulSoup to scrape data from sports stats websites.• Developed a predictive model for NFL game outcomes with 67% accuracy on test data.		
Server/Bartender/Host	<i>Village Idiot Bar and Grill</i>	2016-2021
<ul style="list-style-type: none">• Worked in a high-paced environment, handled customer interactions, and managed cash transactions.• Operated as part of a team, successfully mitigated conflicts and handled thousands of dollars each shift.		
Basketball Coach	<i>Revelstoke Secondary School</i>	2019-2021
<ul style="list-style-type: none">• Volunteered to coach U13 basketball team while serving as the varsity team captain.• Organized drills, coached games, and led practices.• Awarded the Terry Beitel award for community athletic leadership and achievement.		

EDUCATION AND CERTIFICATIONS

University of Calgary		Coursera	
<i>BSc Computer Science</i>	2022-2026	<i>Advanced Learning Algorithms</i>	2023
<i>BSc Mathematics</i>	2021-2026	<i>Regression & Classification</i>	2023

ADVANCED SKILLS

Microsoft Office	Data Validation	SQL
Testing Automation	Data Visualization	Power BI