






AARON PEARSON

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LANGUAGES

English, first language
French, spoken

PROGRAMMING

R/ RStudio (advanced)
Python (beginner)
Microsoft Excel (advanced)

WORK EXPERIENCE

September 2020 —
Present

Club de Hockey Canadiens (Montreal Canadiens, NHL)

Sport Science Internship
Montreal, Quebec

January 2019 —
Present

Seattle University Men's Soccer

Sport Science Consultant
Vancouver, British Columbia

October 2018 —
May 2020

Pacific Western Athletic Association (PacWest)

Collegiate Basketball Official
Vancouver, British Columbia

September 2017 —
September 2020

Clarke Laboratory for Quantitative Exercise Biology

Research Assistant
Simon Fraser University, Burnaby, British Columbia

Research Projects

Physiologically Inspired Models of Velocity-Duration Data from GPS-Based Systems in Soccer

Cleaned, processed, and modeled visualizations for NCAA Division I and Canadian National Women's Soccer Team's GPS tracking data (Catapult and SPT).

Can the Cardiovascular and Metabolic Adaptations to Exercise be Independently Controlled? A systematic review and meta-analysis

Extracted, analyzed, and modeled changes to VO_{2max} , first, and second metabolic thresholds in response to exercise training.

September 2011 —
September 2013

CoreXcellence

Strength and Conditioning Coach
Montreal, Quebec

Wrote and administered strength and conditioning programs for professional, university, collegiate, and high school athletes. Coached athletes in- and off-season.

EDUCATION

September 2020 —
September 2022

University of Montreal

LabSport
MSc Exercise Science, Faculty of Medicine
Montreal, Quebec

September 2017 —
April 2020

Simon Fraser University

Laboratory for Quantitative Exercise Biology
BSc Kinesiology Major & Statistics Minor, Faculty of Biomedical Physiology and Kinesiology
Vancouver, British Columbia

PROJECTS

January 2020 —
August 2020

Modeling Fatigue Curves in Collegiate Soccer Using Spatio-Temporal Data

Surveyed GPS data from Division I soccer and modeled player fatigue curves as a function of the distance from the ball-handler. Expanded and adapted existing models to produce novel research.

Capstone Project: BPK 498, Directed Studies (Multi-disciplinary: Kinesiology, Statistics, Big Data)

November 2019—
December 2019

Why Do NFL Players Get Injured? An analysis of player position, routes, and playing surface using spatio-temporal data

Examined velocity, acceleration, and cut angle of NFL players on different playing surfaces resulting in foot-related injuries. Drafted with graduate students at Simon Fraser University, department of Biomedical Physiology and Kinesiology.

Hackathon Submission

September 2019 —
June 2020

SFU Men's Basketball Sports Analytics Team

Consulted with SFU Men's Basketball Team. Explored spatio-temporal data to optimize playing strategy and subjective wellness data to individualize practice schedules.

Team Member

September 2019 —
December 2019

Athlete Conversion and Podium Projection Modelling

Modelled Olympic prospect trajectories from fifty sports. Interpreted data from the last nine years and presented findings to the Canadian Sport Institute.

Capstone Project: BPK 420/ STAT 90, The Practice of Sports Data Analytics

May 2019 —
August 2019

Data Analytics, Load Management, and Injury Prevention Modelling in Collegiate Men's Soccer

Analyzed SFU Men's Soccer subjective wellness data, and constructed a FlexDashboard application modelling player fatigue for coaches and performance staff.

Capstone Project: BPK 343, Active Health: Assessment and Programming

September 2018 —
September 2020

SFU Sports Analytics Journal Club

Collaborated with graduate and doctoral students discussing statistical modelling of game strategy, player load management, and injury prevention.

Club Member

September 2018

Vancouver Sports Analytics Symposium and Hackathon (VanSASH)

Spearheaded a team of data analysts and won first place in the Sports Analytics stream. Analyzed spatio-temporal data from the Vancouver Whitecaps and located weaknesses in playing strategy. Communicated findings to the Director of Strategy and Analytics.

Hackathon and Symposium

September 2018 —
June 2020

DataCamp

Completed courses (non-exhaustive list): Introduction to Writing Functions in R, Supervised Learning in R: Classification, Supervised Learning in R: Regression, Unsupervised Learning in R, Machine Learning in the Tidyverse, and Visualizing Geospatial Data in R.

Independent Project

September 2017 —
Present

SFU Sports Analytics Group

Attended bi-weekly meetings discussing sports analytics, statistical modelling techniques, and participated in online hackathons.

Group Member