# Jeff Sylvestre-Decary

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#### EDUCATION

### University of Connecticut

Storrs, CT

PhD in Business Administration

Aug. 2020 - Present

• Concentration: Operation and Information Management (OPIM)

#### Polytechnique Montreal

Montreal, Canada

M.Sc.A. Mathematics

Aug. 2018 - Sept. 2020

• Member of the Canada Excellence Research Chair in Data Science for Real-Time Decision-Making

## University of Quebec in Montreal

Montreal, Canada

B.Sc.(Honors) Actuarial Science

Aug. 2015 – May 2018

### Publication

#### Paper in progress:

• Bergman, David, Imbrogno, Jason, Lodi, Andrea, Sylvestre-D., Jeff. "A Neural Network-Embedded Optimization Approach for Selecting Multiple Entries for March Madness." Journal of Computing (2021)

#### Projects

#### On Fast-Algorithms for Embedded Neural-Network Optimization

Aug 2020 – Present

- Optimize the scheduling of healthcare operation rooms
- Integration of Machine learning and optimization for a stochastic problem

## Collegiate Sports Betting

Jan. 2019- May. 2019

• Trained an agent using reinforcement learning to bet on collegiate basketball games

## Impact of Boosting models

Aug. 2018- Dec. 2018

• Compare the impact of boosting an algorithm with high capacity model (e.g. neural network) or low capacity model (e.g. logistic regression)

## Third Actuarial Pricing Games

Jan. 2017-May 2017

- Insurance pricing competition on an artificial insurance market
- Claim loss prediction model
- Profit margin optimization
- Premium calculation according to the risk profile of each insured

#### Work Experience

#### Asset Management and Pensions Intern

May 2017 – Aug. 2017

Normandin Beaudry

Montreal, Canada

- Actuarial evaluation and financial projection for pension funds
- Preparation of the client's annual asset review presentation

#### **Business Intelligence Intern**

Jan. 2016 – Jul. 206

The Co-operators

Montreal, Canada

- Legacy systems reconciliation
- Database analysis
- Solution and design development research

## Graduate Assistantship (UCONN)

Aug 2020 - Present

• OPIM 3103: Collaborated on curriculum development, met with students during office hours and graded homeworks and exams

# Third place at Munich Re Cup

Jan 2018–April 2018

- The Munich Re Cup is a case competition open to the Centers of Actuarial Excellence in Canada.
- Developed an accelerated underwriting program using machine learning
- Presented to senior executives of Munich Re

# Completion of professional exams of the Society of Actuaries(SOA):

2015-2017

- Probability
- Financial Mathematics
- Models for Financial Economics
- Construction of Actuarial Models

#### SERVICE

# Secretary of the board of directors of Tennis de table Quebec

May 2019-Today

• Making financial and operational decisions about the priorities of the Federation

### LANGUAGES, SKILLS AND SPORTS

- French & English
- Python, R, Pytorch, Gurobi and LATEX
- Table tennis, tennis, badminton, hockey