

Jeff Decary

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EDUCATION

University of Connecticut

PhD in Business Administration

Storrs, CT, United States

Aug. 2020 – Present

- Concentration: Operation and Information Management (OPIM)

Polytechnique Montreal

M.Sc.A. Mathematics

Montreal, QC, Canada

Aug. 2018 – Sept. 2020

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

University of Quebec in Montreal

B.Sc.(Honors) Actuarial Science

Montreal, QC, Canada

Aug. 2015 – May 2018

PUBLICATION

Major revision at Production and Operations Management

- Decary, Jeff., Bergman, David, Cardonha, Carlos, Imbrogno, Jason, Lodi, Andrea.
“The Madness of Multiple Entries in *March Madness*”.
 - * Proposed a strategy and three heuristics using mixed-integer linear programming to fill March Madness brackets
 - * Our best solution outperforms all 12,605 entrants of a DraftKings contest in term of expected score
 - * Our best solution has a probability of 1.82% of winning \$1 million for given an investment of \$10,000 which is the 2nd highest among all entrants

Reject and Resubmit at Operations Research

- Decary, Jeff, Zou, Bin, and Bergman, David.
“Parlay Building for Simultaneous Events.”
 - * Build a prediction model for each statistic (Points, Assist, Rebound, Block) of each NBA player
 - * Development of an exact algorithm to find optimal betting allocation given a collection of parlays

Paper in Progress

- Decary, Jeff, Bergman, David, Day, Robert. “Pricing Mechanism for Daily Fantasy Sports.”
 - * Build a simulation model of the scoring distribution of each NBA player
 - * Develop strategy for different types of gambler
 - * Analyze the impact of the *Daily Fantasy Player* pricing on the winning odds of different types of gambler
- Decary, Jeff, Wang, Keliang, Cardonha, Carlos, Bergman, David, Bai, Miao.
“Branch-and-Price Algorithms for Embedded Neural Network Optimization: Application on a Surgical Room Scheduling Problem”
 - * Simulation model that forecasts the cost of an operating room surgery schedule given randomly distributed surgical operating time and recovery time
 - * Neural Network to forecast a schedule’s cost to an operating room surgery schedule
 - * Branch-and-Price algorithm to optimize embedded Neural Networks

WORK EXPERIENCE

Graduate Assistantship

Aug 2020 – Present

University of Connecticut

Storrs, USA

- OPIM 3602 (Spring 2024): Held office hours and Graded homeworks and exams
- OPIM 3104 (Spring 2024): Gave a Machine learning lecture, held office hours and graded homeworks
- OPIM 3103 (Fall 2022-Spring 2023): Instructor. Introduced Excel and business information systems through data analysis
- OPIM 3103 (Fall 2020, Spring 2021, Spring 2022): Held office hours, and graded homeworks and exams
- OPIM 3104 (Fall 2021, Spring 2024): Held office hours, graded exams and assisted the professor during in-class activities to guide students

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. 2016

The Co-operators

Montreal, Canada

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

AWARD & ACTIVITIES

Named Scholar-Scholarship

2023-2024

UConn School of Business Dean's Summer Fellowship

2022-2023

Predoctoral Summer Fellowship

May 2021

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

VOLUNTEERING

CP2023

Aug-Sept 2023

- Registration and Check-In
- Session Assistance
- Directional Support
- Poster Session Assistance
- General Assistance

CP2021

Oct 2021

- Technical Support

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

May 2019-June 2023

- Making financial and operational decisions about the priorities of the Federation given a budget of \$500,000
- Received funding of \$46,000 from the Government of Quebec to develop a computer vision tool using Open-MMLab-mmdetection to do video analysis of table tennis matches

LANGUAGES, SKILLS, AND INTEREST

- French & English
- Python, R, Julia, MatLab, Pytorch, Gurobi and \LaTeX
- Sports (Racket sports and team sports), Board games, Cooking, and Travelling