

SEAN GROGAN

sean.grogan@polymtl.ca

Polytechnique Montréal

514-207-0075 ♦ 802-448-0772

SUMMARY

PhD Candidate in the Department of Mathematical and Industrial Engineering at Polytechnique Montréal. Has the ability and desire to teach courses in Operations Research and Management Science, Applied Mathematics, or using the tools for these fields like CPLEX, Gurobi, Python, C++. Teaching experience includes corporate training environments and one-on-one tutoring.

EDUCATION

PhD, Industrial Engineering and Applied Mathematics (In Progress) 2016—Present
Polytechnique Montréal
Research Project : Optimizing flight operations of UAVs in search and rescue operations

MSc, Computer Science and Operations Research 2016
Université de Montréal
Thesis : An adaptive neighborhood search algorithm for optimizing stochastic mining complexes

BEng, Mining and Metallurgical Engineering Co-Op Program 2013
McGill University

PUBLICATIONS

Journal Article : **Grogan, Sean**; Pellerin, Robert; Gamache, Michel (2021). Using tornado-related weather data to route unmanned aerial vehicles to locate damage and victims OR Spectrum.

Journal Article : Garnett, Holly Ann; **Grogan, Sean** (2021). I came, I saw, I voted: Distance to Polling Locations and Voter Turnout in Ontario, Canada. Canadian Journal of Political Science.

Conference Proceedings : **Grogan, Sean**; Gamache, Michel; & Pellerin, Robert (2019). Dynamically Routing UAVs in the Aftermath of a Severe Tornado. In Edition ProLog 2019. Metz, FR.

Conference Proceedings : **Grogan, Sean**; Gamache, Michel; & Pellerin, Robert (2018). The use of unmanned aerial vehicles and drones in search and rescue operations - a survey. In Edition ProLog 2018. Hull, UK.

Masters Thesis : **Grogan, Sean** (2016). An adaptive neighborhood search algorithm for optimizing stochastic mining complexes. Université de Montréal.

Editorial : **Grogan, Sean** (2013). Applying mathematical models to complex mining operations at Newmont McGill Reporter, Sept 19, 2013.

TEACHING EXPERIENCE

English Language and Technical Writing Tutor 2014—Present
Montréal, Québec, Canada

COSMO Mine Links Tutorial for COSMO Tech Day 2015
Montréal, Québec, Canada

COSMO Mine Links Tutorial for Newmont Mining Corporation Winnemucca, Nevada, United States of America	2014
Lacrosse Coach Montréal, Québec, Canada	2011–2013
National Officials Lacrosse Certification Program, Instructor Montréal, Québec, Canada	2012

AWARDS AND SCHOLARSHIPS

Polytechnique Scholarship Polytechnique Montréal Renewed Annually 2016 – 2021	September 2016
Three Minute Thesis - Second Place Polytechnique Montréal 3MT is a university wide competition in which participants present their research and its wider impact in 3 minutes or less to a panel of non-specialist judges.	March 2018

EMPLOYMENT EXPERIENCE

English language proofreader, editor, and tutor Montréal, Québec, Canada	2014–Present
Long range mine planner Newmont Mining Corp, Denver, Colorado, United States of America	2013
Head coach Dawson College Lacrosse Program, Montréal, Québec, Canada	2011–2013
Short range mine planner Syncrude Canada Ltd, Fort McMurray, Alberta, Canada	2011

ACADEMIC SERVICE, VOLUNTEER EXPERIENCE, AND OTHER CREDENTIALS

Pro Bono Analytics, 10:12 Sports Baltimore, Maryland, United States of America	June 2020 – December 2020
PROLOG 2019 Project Logistic Scientific Committee and Track Coordinator IAE Metz School of Management, Université de Lorraine, Metz, France	June 2019
First Aid and CPR Certified Valid until March, 2021 Canada Heart and Stroke Foundation, Montréal, Québec, Canada	April 2018
Loyola High School Science Fair Volunteer Montréal, Québec, Canada	Annually since 2014

CONFERENCE PARTICIPATION

2020 CPSA Annual Conference (Canceled, COVID-19) University of Western Ontario, London, Ontario, Canada	June 2020
2020 CSDC Conference – Democracy and Diversity (Postponed, COVID-19) Centre for the Study of Democratic Citizenship, Montréal, Québec, Canada	April 2020

PROLOG 2019 Project Management and Logistics IAE Metz School of Management, Université de Lorraine, Metz, France	June 2019
Optimization Days 2019 HEC Montréal, Montréal, Québec, Canada	May 2019
INFORMS Annual Meeting 2018 Phoenix, Arizona, United States of America	November 2018
PROLOG 2018 Project Management and Logistics University of Hull, Hull, England	June 2018
Optimization Days 2018 HEC Montréal, Montréal, Québec, Canada	May 2018
COSMO Stochastic Mine Technical Days 2016 McGill University, Montréal, Québec, Canada	June 2016
COSMO Stochastic Mine Technical Days 2015 McGill University, Montréal, Québec, Canada	June 2015
CORS Annual Conference 2015 Canadian Operational Research Society, Montréal, Québec, Canada	April 2015
Integrated Strategic Planning Seminar 2014 Toronto, Ontario, Canada	May 2014

SKILLS AND RESEARCH INTERESTS

Research Domains	Operations Research ; Mathematical Modelling ; Stochastic Optimization ; Metaheuristics; Hyper-heuristics ; Mathematical Modelling with Uncertainty
Research Interests	Disaster Preparation ; Humanitarian Logistics ; Public Sector OR ; Geographic Information Systems ; Natural Resource Utilization
Skills	Computer Programming ; Mathematical Modeling ; English Proofreading and Editing ; Computer Hardware Maintenance ; Heavy Equipment Operation ; Machinist Experience
Languages, Software	Python ; C++/C ; Java ; QGIS ; CPLEX ; GUROBI

GROUPS, AFFILIATIONS, AND SOCIETIES

Chaire de recherche Jarislowsky/SNC-Lavalin en gestion de projets internationaux
 Institute for Operations Research and the Management Sciences (INFORMS)
 Canadian Operational Research Society (CORS)
 Centre interuniversitaire de recherche sur les réseaux d'entreprise, la logistique et le transport (CIRRELT)
 Groupe d'études et de recherche en analyse de décisions (GERAD)
 Groupe de recherche en gestion et mondialisation de la technologie (GMT)
 Montreal Operations Research Student Chapter (MORSC)
 Elections and Democracy Lab (LED)

Formerly:

Stochastic Mine Planning Laboratory at McGill University (COSMO)

ON THE INTERNET

GitHub	https://github.com/seangrogan/
GitHub (Research Material)	https://github.com/seangrogan-researchprojects
LinkedIn	https://www.linkedin.com/in/seangrogan/
ORCID	https://orcid.org/0000-0002-1347-7874/
Google Scholar	https://scholar.google.ca/citations?user=7J9R0K0AAAAJ
Web Site	https://www.seangrogan.net/

Erdős number : 5