ALIAKSANDR NEKRASHEVICH

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Passionate about improving manufacturing and business decisions using data science and optimization. Careful, persistent, patient, respectful, and competent. Ph.D. from Queen's University in the area of revenue management and pricing optimization. A genuine team player committed to group success and growth. Sincere and honest with a high level of personal and professional integrity

EDUCATION

Ph.D. in Management Analytics, Smith School of Business, Queen's University, Kingston, ON, Canada

2020 - 2025

2017 - 2019

- Thesis "Three Essays in Resort and Sea Cargo Revenue Management" defended on June 20, 2025 [Link]
- Degree Requirements satisfied on June 30, 2025. Supervisors: Mikhail Nediak, Guang Li, Yuri Levin

GPA 3.97 (out of 4.3)

M.Sc. in Statistical Learning Theory, Higher School of Economics (HSE), Moscow, Russia

HSE GPA 8.56 (out of 10.0)

M.Sc. in Data Science, Skolkovo Institute of Science and Technology (Skoltech), Moscow, Russia Degree is Verified by World Education Services [Link]

Skoltech GPA 4.67 (out of 5.0)

- A joint Master's program taught together in HSE and Skoltech, advisors: Alexander Gasnikov, Vladimir Spokoiny
- Defended Thesis "Stochastic Modelling and Optimization in Freight Revenue Management" [Link]

Bachelor of Computer Science, Belarusian State University (BSU), Minsk, Belarus

2011 - 2017

Diploma with distinction, advisor: Vladimir Kotov

GPA 9.2 (out of 10.0)

PUBLICATIONS

Alexandre Dolgui, Vladimir Kotov, Aliaksandr Nekrashevich, Alain Quilliot. General parametric scheme for the online uniform scheduling problem with two different speeds. Information Processing Letters, Elsevier, 2018, 134, pp.18-23 [Link]

WORKING PAPERS

Aliaksandr Nekrashevich, Mikhail Kovalyov, Genrikh Levin, Yuri Levin, Guang Li, Mikhail Nediak. Scalable Stochastic Model for Sea Cargo Revenue Management with Empty Container Transportation. [Under Review in Transportation Research Part E]

- Implemented a Sea Freight Revenue Management System prototype. The algorithm is scalable, accounts for uncertainty, makes profits from empty container transportation, and covers multiple business lines
- Presented at the Canadian Operations Research Conference (CORS 2024, June 3-5, London, ON, Canada) [Link]
- Presented at the INFORMS Computing Society Conference (ICS 2025, March 14-16, Toronto, ON, Canada) [Link]

Aliaksandr Nekrashevich, Yuri Levin, Guang Li, Mikhail Nediak. Randomized Linear Programming for Resort Revenue Management with Ancillary Values and Free Upgrades. [Rejected by POM after 2nd submit, now targeting EJOR]

Theoretic and computational study of how a family of randomized linear programming approaches is applied in resort revenue management, with scalable experiments launched on the Frontenac Cluster for clear confidence interval separation

WORK IN PROGRESS

Aliaksandr Nekrashevich, Yuri Levin, Guang Li, Mikhail Nediak. A Data-Driven Approach for Dynamic Resort Resource Allocation with Auxiliary Values and Free Upgrades. [Work in progress]

- Implemented a Revenue Management System prototype for a private golf hotel resort with an approximately 5% lift in revenue
- Presented at the Canadian Operations Research Conference (CORS 2022, June 5-8, Vancouver, BC, Canada) [Link]
- Presented at Canadian Conference on Electrical and Computer Engineering (CCECE 2024, August 6-9, Kingston, ON, Canada) [Link to proceedings]

RESEARCH INTERESTS

Dynamic Pricing, Subgradient Optimization, Randomized Linear Programming, Discrete Optimization, Approximation Algorithms

RESEARCH EXPERIENCE

Postdoctoral Researcher, IMT Atlantique, Nantes, Loire-Atlantique, Pays de la Loire, France

2025 - now

- Postdoctoral position at Automation, Production and Computer Sciences department (DAPI) related to modeling marketplace operations
- Research related to joint pricing and scheduling at a manufacturing-as-a-service marketplace level

Research Assistant, Scotiabank Centre for Customer Analytics, Kingston, ON, Canada

2022 - 2023

- Research Internship at Scotiabank Marketing Group related to a D2D Acquisition marketing campaign
- · Applied recency-frequency modeling to investigate marketing attribution and conversion impact
- Received personal Dean Travel Grant for Field Research

Research Assistant, Scotiabank Centre for Customer Analytics, Toronto, ON, Canada

2018

- Research position at Scotiabank Data Science and Analytics Lab targeting funds transfer pricing improvements
- Used time series clustering to study client transaction behavior over deposit accounts
- Received Mitacs Globalink Research Internship

INDUSTRIAL EXPERIENCE

Junior Software Engineer, Yandex BY LLC, Minsk, Belarus

2016 - 2017

- Focused on improving the core engine for speech recognition at the Yandex Speech Kit department
- Trained deep recurrent neural models and helped with moving the model learning process to the cloud platform Nirvana

Software Developer Intern, Yandex LLC, Moscow, Russia

2013

- Experimented with the service Yandex Music at the **Recommender Systems** department
- Implemented latent factor models with implicit alternating least squares optimization

Self-Employment, UNP 192519340, Minsk, Belarus

2015 - 2020

Individual entrepreneurship of small scale in the area of IT, machine learning, revenue management, and pricing optimization

SPECIALIZED TRAINING

Yandex School of Data Analysis (YSDA), Computer Science, Minsk, Belarus

2012 - 2014

Master's-level independent program in Computer Science and Data Analysis provided by the Russian search engine Yandex

PROJECTS

Study with Fitness Tracker

2023

A data-science study of personal sleep experience based on the data collected from the Fitbit fitness tracker using semiadvanced Time Series forecasting [Link to Repository]

Client Behavior on Car Credit Payments at a Bank in Eastern Europe

2021

• Addresses the problem of issuing a credit loan to purchase a car. The goal is to understand clients' behavior and repayment policies based on individual features [Link To Repository]

Capsule Networks for Car Sign Recognition

2021

• Implemented and applied well-known Capsule Networks for the standard car sign recognition problem [Link To Repository]

ESICUP Challenge 2015 [Link to Data]

2014 – 20

- International project contest about the best packing for a real-life logistic problem from the car manufacturer RENAULT
- Team passed qualification with 4th place [Link To Qualifier Repository]. Final Results: Instances A 5th place, Instances B 6th place, Instances X 5th place [Link To Final Repository]
- Published in conference proceedings: Aliaksei Kolesau, Pavel Irzhauski, Aliaksandr Nekrashevich, Henadzi Klimuk, Vladimir
 Kotov. Genetic approach to ESICUP Renault Container Loading Challenge 2015. 12th ESICUP Meeting Booklet, 2015, pp. 24-25

TEACHING EXPERIENCE

Smith School of Business, Kingston, ON, Canada

•	Teaching Assistant , MMA-867 (Predictive Modeling). Student Hours, Assignment Verifications	2023
•	Teaching Assistant, MMAI-830 (Pricing Analytics). Student Hours, Assignment Verifications	2020
•	Technical Assistant, MMAI-847 (Capstone Projects). Technical Consultations	2020
•	Teaching Assistant, MMA-867 (Predictive Modeling). Student Hours, Assignment Verifications	2020

Yandex School of Data Analysis, Minsk, Belarus

• **Teaching Assistant**, Machine Learning. Seminars for Belarusian branch of Yandex Data Analysis School **2017**

Life Telecommunications (3rd largest Belarusian mobile operator), Minsk, Belarus

• Technical Instructor, Machine Learning. Professional education for the business analytics department 2016

41st Gymnasium, Minsk, Belarus

• **Teaching Instructor**, Advanced Mathematics. Transferred experience to further generations

2011

PROGRAMMING SKILLS

- Programming Languages: Python (professional), R (basic), C++ (professional), Java (basic), Bash (intermediate)
- Frameworks: pytorch, tensorflow, sklearn, pyspark, numpy, scipy, matplotlib, django, pandas, plotly, seaborn

AWARDS AND RECOGNITION

Smith School of Business, Kingston, ON, Canada• Monieson Centre Scholarship2021• International Tuition Award2021• Smith School of Business Award2021-2024• Queens Graduate Award2023-2024

ACADEMIC SERVICES

•	Session Chair, Pricing and Revenue Management - INFORMS Computing Society Conference 2025	2025
•	Treasurer - CORS Student Chapter in Kingston	2024-2025

CONTESTS AND OLYMPIADS

Google Hashcode Team Programming Contest

2017 - 2018

2021-2023

- Hashcode Finals 30th place in 2017 (Paris, France) [<u>Link</u>], 34th place in 2018 (Dublin, Ireland) [<u>Link</u>]
- Hashcode Elimination 13th place in 2017, 35th place in 2018

Graduate Research Fellowship, Yuri Levin and Guang Li

ACM-ICPC Collegiate Sports Programming

2012 - 2015

- ACM-ICPC World Finals 14th place in 2014 (Marrakech, Morocco) [Link], 21st place in 2015 (Ekaterinburg, Russia) [Link]
- ACM-ICPC Northeastern European Regional Contest 24th place in 2012 [Link], 23rd place in 2013 [Link], 14th place in 2014 [Link]
- ACM-ICPC Western Subregional Contest 2015 (Minsk, Belarus) Problem Setter. Designed some of the contest problems

IMC Individual International Competition in Mathematics for University Students

2014 - 2015

2nd Diploma in 2015 (Blagoevgrad, Bulgaria) [<u>Link</u>], 3rd Diploma in 2014 (Blagoevgrad, Bulgaria) [<u>Link</u>]

International Team Tournament of Young Mathematicians

2010 - 2012

- 3rd Diploma in 2010 (Orsay, France) [Link], 1st place in 2011 (Minsk, Belarus) [Link]
- Belarusian team coach in 2012 (Orsay, France) [Link]

Belarusian Individual National Olympiad in Mathematics

2010 - 2012

• 2nd diploma in 2011, 8th place at IMO Selection 2011

Team Research Project "Combinatorial Analogue of a Tomography Problem"

2010 - 2011

- European Union Contest for Young Scientists (EUCYS 2010, Lisbon, Portugal). Poster presentation
- Intel International Scientific-Engineering Fair (Intel ISEF 2011, Los Angeles, USA). Poster presentation
- Baltic Scientific-Engineering Fair (BaltSEF 2011, St. Petersburg, Russia). Poster presentation
- 5th Festival of Sciences (Moscow, 2010). Poster presentation
- Belarusian National Conference (Minsk, 2010). Conference talk

EXTRACURRICULAR EXPERIENCE

Ultimate Frisbee Section, Manager, Belarusian State University, Minsk, Belarus

2011 - 2013

- Provided an opportunity for semi-professional players at Minsk Ultimate Frisbee clubs (Spinin, X3, Rukhavik) to count sports
 experience for physical education classes
- Organized discounted gym rentals for cross-club ultimate training in 41st and 75th Minsk gymnasiums
- Played and trained in parallel at the Spinin ultimate frisbee club, participated in Eastern European tournaments

REFEREES

- Mikhail Nediak, mikhail.nediak@queensu.ca (scientific supervisor at Smith School of Business)
- Guang Li, guang.li@queensu.ca (co-advisor at Smith School of Business)
- Yuri Levin, <u>yuri.levin@queensu.ca</u> (co-advisor at Smith School of Business)

ADDITIONAL INFORMATION

- Professional Societies: CORS (Jul 2024 Mar 2025), INFORMS (Jul 2024 current), POMS (Jul 2024 Dec 2024), ROADEF (Oct 2025 current), EURO (Aug 2025 current)
- Profiles: ORCID 0009-0009-3364-6805, WOS MFK-3101-2025, Google Scholar PzrqbSIAAAAJ, Scopus ID 57200496094
- Networks: Academia.edu AliaksandrNekrashevich, Research Gate Aliaksandr-Nekrashevich
- Repositories: Github @smith-nekrald, GitLab @smith-nekrald, GitHub @nekrald, GitLab @nekrald
- Languages: English (professional), French (beginner), Polish (beginner), Russian (native), Belarusian (native)
- Sports/Hobbies: Photography, Volleyball, Pickleball, Fishing