# CURRICULUM VITAE ANTON SELITSKIY

# **Contact Information**

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Computer Studies Building

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# **Appointments**

Visiting Lecturer, Rochester Institute of Technology, Rochester (NY)	08/2023 - 05/2025
Research Assistant, University of Rochester, Rochester (NY)	09/2021 - 12/2022
Senior Researcher, Russian Academy of Sciences, Moscow (Russia)	01/2012 - 06/2018
Associate Professor, Moscow Aviation Institute, Moscow (Russia)	10/2008 - 01/2012
Senior Lecturer, Moscow Aviation Institute, Moscow (Russia)	09/2007 - 08/2008
Lecturer, Moscow Aviation Institute, Moscow (Russia)	03/2004 - 06/2005

#### Education

University of Rochester, PhD candidate in Electrical Engineering	2022 - 2026
University of Rochester, MSc in Electrical Engineering	2020 - 2022
Russian Academy of Music, MA in Opera Performance and Pedagogy	2008 - 2013
Lomonosov State University of Moscow, PhD in Mathematics	2004 - 2007
Moscow Aviation Institute, BSc and MSc in Applied Mathematics with distinction	1998 - 2004

#### Research

Topics: Machine Learning, Deep Generative Models, Optimal Transport, Functional Analysis, Stochastic Processes, Audio Signal Processing

Google Scholar h-index 7

Publications: 1 textbook, 19 papers (8 in Q1 and Q2 journals), 21 presentations

Paper Fractional power of operators corresponding to coercive problems in Lipshitz domains is ranking within the top 10% most cited papers in the field of Mathematics published the same year (source)

Grant Participant: RFBR 05-01-00422a, 10-01-00837, 12-01-00524a, NSF 1846184

**Project Manager:** RFBR 13-01-00923 and President grant 4479.2014.1 for government support of the leading scientific schools of Russian Federation

## Awards and Scholarships

Peoples Friendship University of Russia President's stipend in doctoral research (2013).

Stipend for courses at Steklov Mathematical Institute of the Russian Academy of Science: *Blow-up theory* (S.I. Pokhozhaev) and *Advanced topics in calculus* (V.D. Anosov) (2008).

Certificate of Associate Professor at the Chair of Differential Equations awarded by the Ministry of Education of the Russian Federation (2010).

III prize in the vocal competition 1 Concorso lirico (Deiva Marina, Italy) (2010).

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# Selected Services

**Editor** for volumes 47, 58, and 59 of the Journal of Mathematical Sciences/Contemporary Mathematics: Fundamental Directions

**Reviewer** for the Journal of Mathematical Sciences/Contemporary Mathematics: Fundamental Directions, Boundary Value Problems, and Mathematical Methods in the Applied Sciences

Organizer for the Fourth International Conference on Differential and Functional Differential Equations (Moscow, Russia, August 14–21, 2005) and Seventh International Conference on Differential and Functional Differential Equations (Moscow, Russia, August 22–29, 2014)

Academic and Career Programming Officer at Graduate Student Association of University of Rochester (2023–2024).

# Undergraduate/Graduate Mentoring and Project Supervision

#### 2025:

Erick Barros: Independent Study Course Time Series Forecasting and Generative Models

Mona Anil Udesi (MS capstone): Incorporating OT in speech generation algorithms

Maitreya Kocharekar (MS capstone): Improvement of voice conversion with OT paper

Siddhesh Dhonde (MS capstone): Image restoration with OT

Indrajeet Devale (MS capstone): Video summarization

Anushka Churi (MS capstone): Improvement of speaker verification system with KANN Sahil Sanjay (MS capstone): Comparison of fine-tuning and RAG of LLM for table data **2024**:

Fazil Pasha (MS capstone): Speaker Verification System Improvement

Shreyas Shridhar (MS capstone): Detection of Attacks on the Audio Assistants

Nithish Kumar (MS capstone): TSLA Stock Prediction Using Multiple Time Series

Kevin George (MS capstone): Summedit: Abstractive Text Summarization For Online Discussion

David Millard (3rd year student): Independent Study Course Bayesian Deep Learning. In Summer during his research internship, he applied Denoising Diffusion Probabilistic Model to speed up the numerical solution of the Euler equations that resulted in a conference paper.

#### 2023:

Yuheng Shi (MS capstone): Utilizing Large-Language Models for Cat Food Recommendation

### **Teaching**

CSCI-539 Large Language Models New course was developed (2025) link

Bayesian Deep Learning Independent Study course was developed and offered (2024)

CSCI-665 Theory of Algorithms (2024)

CSCI-335 Machine Leaning Complete course revised including creation of 12 homework assignments instead of 4 in the previous version and a midterm (2023, 2024, 2025) link

CSCI-141 Computer Sciences I Final project modified, a lab on dictionaries created (2023, 2024)

ECE-208/408 The Art of Machine Learning Teaching Assistant (2022)

ECE-277/477 Computer Audition Teaching Assistant (2021)

ECE-111 Introduction to Electrical Circuits Teaching Assistant (2020)

Partial Differential Equations (2006 – 2008)

Calculus I, II, III (2004 – 2008)

Linear Algebra and Geometry (2004 – 2008)

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