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lowinertia.com/portfolio/daniel-sadreyev

Boston, MA

#### **Education**

Bachelor of Science in Electrical Engineering, Northeastern University, Boston, MA Exp. Apr 2028

*Relevant Courses:* Circuit & Signals, Biomedical Applications | Differential Equations & Linear Algebra | Calculus 3 | Physics 2 | Fundamentals of Networking | Cornerstone 1 & 2

Activities: Roxbury Robotics | Electric Racing | Downhillers | NUHOC | Study abroad, Spain (Fall 2024)

#### Skills

Computer Applications: LTSpice | AutoCAD | SolidWorks | Fusion 360 | Arduino IDE | Blender | Excel Languages: C++ | Python | MATLAB | Java | R | Linux || French | Russian

*Workshop Skills:* 3D printing | Circuitry | Soldering | Raspberry Pi | DMM | Oscilloscope | Woodworking *Lab Skills:* Large-scale RNA-seq data analysis | Cell and molecular biology | Microscopy | Image analysis

# **Professional Experience**

Research Assistant, Regeneron Pharmaceuticals, Tarrytown, NY

Jun-Aug 2023

- Designed and completed full experiment to optimize a new tissue-specific drug delivery system
- Applied histochemistry, microscopy, cell counting, FACS flow cytometry, and image analysis
- Conducted literature review to assess the efficiency of the drug delivery system and presented to oncology lab

#### Lab Intern, Massachusetts General Hospital / Harvard Medical School, Boston, MA Jun 2022-2024

- Completed an experimental project on mechanisms of neutrophil depletion by 8 used medications
- Learned and performed the full experimental workflow: cell culture, cell growth assays, DNA cloning, cell transfection/transduction, RNA extraction and sequencing
- Performed computational analyses of large-scale RNA-seq data with bioinformatics methods
- Visualized and interpreted molecular and cell data using R, Prism, and Excel
- Co-authored a research article in British Journal of Haematology (PubMed ID: 39327763)

Certified Swimming Instructor & Lifeguard, Pace University, Pleasantville, NY Oct 2021-May 2023

- Taught swimming lessons to people of all ages and abilities with patience and adaptability
- Ensured a safe and supportive learning environment while supervising lessons and swim meets

#### Counselor, Russian School of Mathematics, Sunapee, NH

Jul 2021

- Led woodworking workshop activities and helped teach geometry and calculus to campers
- Worked closely with staff to organize activities and ensure smooth daily operations

## **Projects**

### **Adjustable Wind Tunnel (Cornerstone 2)**

Feb-Apr 2025

- Collaborated with team to design and test a wind tunnel for testing turbine propeller efficiency
- Applied MATLAB to analyze and visualize energy production onto an LCD through I2C

#### Personal Design

Jun 2022-Present

- Tinker with and fix old guitar amplifiers, computer sound cards, and digital-to-analog converters
- Assembled custom auto leveling 3D printer with remote monitoring and control using a Raspberry pi with Wi-Fi
- Designing CAD models to 3D print: self-watering plant pot, modular tripod, ABS extruder, etc.
- Used high pressure pumps and microcontroller timers to mist my plants and pets' vivarium automatically
- Built a personal desktop computer from component selection through full assembly

**Interests:** Playing bass in a band | swimming | aikido (5<sup>th</sup> kyu rank) | rock climbing | backpacking | camping