Justin Tsemekhin

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EDUCATION

Cornell University   **Ithaca, NY**
Bachelor of Science in Biology and Mechanical Engineering   Expected May 2027
- **GPA:** 3.80 / 4.00
- **Relevant Coursework:** Fluids, Dynamics, Mechanical Design, Statics & Mechanics of Solids, Differential Equations, General and Organic Chemistry, Biochemistry, Comparative Physiology, Physics I & II

EXPERIENCE

Bonassar Lab   **Ithaca, NY**
Assistant Researcher   September 2025 – Present
- Dissected bovine knees to extract condyle samples to culture and test treatments for meniscal osteoarthritis
- Reviewed previous academic literature to further quantify previous research and receive funding

Resource Room Learning Center   **Staten Island, NY**
Instructor   May 2025 – Present
- Provided tailored and small group tutoring sessions to improve student performance in class
- Monitored progress and formulated individualized strategies to boost performance on national assessments

Cornell University Department of Chemistry and Chemical Biology   **Ithaca, NY**
Teaching Assistant   August 2024 – Present
- Led recitation sections for 800+ students in General Chemistry to help improve student understanding
- Made rigorous practice problems to supplement course material and coincide with recitation instruction
- Hosted office hours to teach students while working with professors to improve lecture content

Organic Robotics Laboratory   **Ithaca, NY**
Assistant Researcher   January 2024 – May 2025
- Optimized component function and maximized energy output of combustion reaction to power robot
- Developed a micro circuit board for wireless control and autonomous movement of soft robot
- Designed components for wave energy harvester to maximize printing capacity and cost efficiency

American Councils   **Washington, DC**
Program Assistant, Startalk   June 2022 – July 2023
- Taught Russian language to 50 highschool students across the United States as part of an NSA program
- Encouraged student engagement to promote intellectual curiosity and facilitate effective learning
- Created presentations to teach a new language and culture, cultivating an inclusive environment

Staten Island Technical High School   **Staten Island, NY**
Laboratory and Science Assistant   September 2021 – June 2023
- Set up and managed equipment in the laboratory room for safe and efficient turnarounds between classes
- Tutored 75 students in AP and Honors level chemistry courses geared toward exam preparation

Lifestyles for the Disabled   **Staten Island, NY**
Event Coordinator   March 2022 – May 2023
- Organized regularly scheduled local events such as zoo scavenger hunts to bring people together
- Raised money to fund the organization and aid in its mission supporting developmentally challenged adults

AWARDS

New York State Award For Academic Excellence	2023
Presidential Award of Academic Achievement	2023
AP Scholar with Distinction	2023
Staten Island Technical High School Eular Award for Mathematical Excellence	2023
National Merit Scholarship Semifinalist	2022

SKILLS

Certifications: OSHA 10 (2023), FCC Technician Class Radio Operator (2023), AutoCAD (2021)
Proficiencies: Microsoft 365, Google Workspace, Medical Databases (UniProt & PubMed), Native Russian
Skills: Matlab, Fusion360, Python, SolidWorks, Arduino, Adobe Creative Cloud