Ilay Wischnevsky Shlush

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EDUCATION

Tel Aviv University

Tel Aviv, Israel

2nd Year, 2nd Semester BSc (Physics & Mathematics)

Expected 2026

- Participant in Physics Excellence Seminar: Studying QCD under Prof. Marek Kerliner
- Recipient of the Dean's Award for Excellence
- Relevant Coursework: Classical Mechanics, Electromagnetism, Quantum Mechanics I, Statistical Mechanics, Real Analysis I-III, and more.

HEMDA Schwartz-Reisman Science Education Center

Tel Aviv, Israel

Physics & Computational Science

Jun 2023

- Selected for Inter-City Excellence Class
- Modeled physics simulations in Python

Herzliya Hebrew Gymnasium High School

Tel Aviv, Israel

Mechatronics Major

Jun 2023

- Relevant Coursework: Arduino Programming, Electrical Circuits, Algorithm Development, Project Management
- SAT: 1490 / Psychometric: 740

RESEARCH EXPERIENCE

Tel Aviv University

Tel Aviv, Israel

Undergraduate Researcher, Prof. Eli Piasetzky & Dr. Igor Korover

Sep 2024 - Present

Investigating short-range correlations in nuclear physics using experimental data and computational modeling

TEACHING EXPERIENCE

First-Generation Program

Tel Aviv, Israel

Physics & Math Tutor

Jan 2025 - Present

 Providing tutoring to university students in introductory physics and mathematics courses as part of "first-generation" program in Tel Aviv University

Independent Tutoring

Tel Aviv, Israel

Physics & Math Tutor

- Teaching private lessons to high-school students

Talat - "Students for Students"

Tel Aviv, Israel

Co-founder & Teacher

Sep 2022

- Co-founded a high school program for peer-led tutoring in physics, mathematics and english
- Taught underclassmen in STEM subjects

Industry Experience

Waves Audio Tel Aviv, Israel

Research Assistant & Software Developer Intern

Jun 2021 - Dec 2021

- Conducted measurements on audio devices to test acoustic properties under varying temperatures
- Analyzed resonance data with Excel and Python
- Developed Python scripts to automate measurement workflows

Projects

8080: Automatic Acoustic Drumset

- Engineered and programmed an automatic acoustic drumset using Arduino

Light Curve Inversion

- Designed a neural network to reconstruct 3D asteroid shapes from light curves
- Implemented a raytracer to generate synthetic light curves for training

SKILLS & INTERESTS

 $\textbf{Technical Skills:} \ \ \text{Python (Advanced)}, \ \ \text{NumPy, Matplotlib, JavaScript, LaTeX, Java (Intermediate)}, \ \ \text{C\# (Intermediate)}$

Languages: Hebrew (Native), English (Fluent), Spanish (Conversational)

Interests: Violin, Piano, Classical Music, Reading