

Alexander Tschinkel
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<https://tschinkela.github.io/>

Education:

New York University

College of Arts and Science and Tandon School of Engineering Spring 2024.
Dual BS Degree in Physics and Mechanical Engineering, Minors in Mathematics and Aerospace Engineering (GPA 3.33)

Extracurricular Activities: *Society of Physics Students:* Co-President (2023-2024), Treasurer (2022-2023), Winner of SPS National Outstanding Chapter Award (2023), *NYU Rogue Aerospace:* Avionics Team Mechanical Engineer, Winners AIAA Reusable Launch Vehicle Award

Work Experience:

NYU Physics Department Peer Tutoring

Tutor Fall 2022-Present

Led an average of 4 hours/week of tutoring sessions for General Physics students averaging 6 students per session. Students who attended sessions received improved grades and better understanding of concepts from classical mechanics and electricity and magnetism. Served as a liaison between 10 tutors and department administration in order to communicate tutor concerns and needs.

Oculogica

Summer Engineering Intern Summer 2021

Provided Solidworks designs and built prototypes for drop-test compliant medical device shipping. Led project from start to finish, including recommending and sourcing materials, design specifications, prototype build and testing, and development and transfer of Solidworks designs.

Buck Hill Ski Racing Department

Course Assistant Winter 2018-2020

Setup and removal of safety fencing along 300 vertical feet of ski run for daily races. Installation of timing equipment, and the management of a race course. Working in a team of 6 to ensure safe conditions for racers, and assisting injured skiers through safe extraction from fencing and communication with ski patrol. Other skills learned include survival in negative temperatures for prolonged periods of time.

Eco Finishing Company

Maintenance Department Assistant Summer 2019

Assembled and disassembled electroplating equipment, including assembly of over 300 brackets which are used to hold parts during the electroplating process. Assisted with plumbing installations, including drilling through the factory floor. Organized spare part inventories numbering over 1000 parts, and maintained ventilation systems by regularly changing filters on the factory roof.

Research Experience:

NYU Center For Soft Matter Research: Pine Lab

Undergraduate Research Assistant Spring 2022-Present

Conducted research on the colloidal diamond project. Performed and optimized synthesis of latex patchy particles. Executed chemical techniques for the separation of colloidal clusters. Examined adhesion properties of polystyrene micro-particles in relation to silicon wafers under different colloidal dispersion conditions. Designed and manufactured parts for microfluidics applications using CAD and stereolithography.

Recipient: Dean's Undergraduate Research Fund Grant

Skills:

Coding: L^AT_EX, Matlab, Python

CAD: ANSYS, Autodesk Fusion 360, Solidworks, Ultimaker Cura, Grabcad, Shapr3d, Preform

Languages: English (Native), German (Fluent in reading, writing, speaking), Russian (Fluent in speaking, basic reading), French (Proficient in reading, writing, speaking)

Other Skills: Colloidal Chemistry, Density Gradient Centrifugation, Carpentry

Relevant Classes: Advanced CAD, Compressible Flow, Aerodynamics, Heat Transfer, Thermal and Statistical Physics, Quantum Mechanics