Alexander Tschinkel

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Wayzata, MN
https://tschinkela.github.io/

Education:

New York University

College of Arts and Science and Tandon School of Engineering — Spring 2024.
Dual 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 organized peer tutoring sessions for undergraduate general physics courses. Helped teach and reinforce basic physics concepts for students.

Oculogica

Summer Engineering Intern — Summer 2021
Designed structural protection for shipping of a medical device, including materials research, designing multiple prototypes in Solidworks, and building several prototypes out of polyethylene foam.

Buck Hill Ski Racing Department

Course Assistant — Winter 2018-2020
Setup and removal of safety fencing, installation of timing equipment, and the management of a race course. Working in a team to ensure safe conditions for racers, and assisting injured skiers.

Eco Finishing Company

Maintenance Department Assistant — Summer 2019
Assembled and disassembled equipment used for electroplating. Assisted with plumbing installations. Organized spare part inventories, and maintained ventilation systems within a factory.

Research Experience:

NYU Center For Soft Matter Research: Pine Lab

Undergraduate Research Assistant — Spring 2022-Present
Conducted research as part of the colloidal diamond project. Performed and optimized synthesis of latex patchy particles. Executed different chemical techniques for the separation of desired tetrahedral colloidal clusters from samples. Examined adhesion properties of polystyrene micro-particles in relation to silicon wafers under different colloidal dispersion conditions. Designed and manufactured custom parts for microfluidics applications using CAD and stereolithography. **Recipient:** Dean's Undergraduate Research Fund Grant

Skills:

Coding: LaTeX, 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