Alexander Tschinkel

(646) 918-4818 / tschinkela@gmail.com / Website
New York, NY

Education:

New York University, CAS & Tandon School of Engineering — Spring 2024

Dual BS Degree, Physics & Mechanical Engineering, Minors in Mathematics & Aerospace Engineering (GPA 3.38)

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 of the AIAA Reusable Launch Vehicle Award

Research Experience:

NYU Center For Soft Matter Research: Pine Lab — Spring 2022-Present

Undergraduate Research Assistant

Conducted research on colloidal self assembly of photonic crystals. Performed and optimized synthesis and separation of colloidal clusters. Examined adhesion properties of polystyrene micro-particles to silicon wafers under varying colloidal dispersion conditions. Designed and manufactured parts for microfluidics using CAD and stereolithography.

Recipient: Dean's Undergraduate Research Fund Grant

Work Experience:

NYU Physics Department Tutoring — Fall 2022-Present

Tutor

Led an average of 4 hours/week of tutoring sessions for General Physics students averaging 6 students per session. Served as a liaison between 10 tutors and department administration.

Oculogica — Summer 2021

Summer Engineering Intern

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 — Winter 2018-2020

Course Assistant

Led a team responsible for race course set up, including safety installations, performed extractions of injured skiers.

Eco Finishing Company — Summer 2019

Maintenance Department Assistant

Assembled electroplating equipment, organized inventory of spare parts, maintained engineering systems.

Skills:

Digital Skills: LaTeX, Matlab, Python, ANSYS, Autodesk Fusion 360, Solidworks, Ultimaker Cura, Grabcad

Relevant Coursework: Quantum Mechanics, Electricity & Magnetism, Dynamics, Computer Aided Design, Heat Transfer, Fluid Mechanics, Aerodynamics, Compressible Flow, Mechanics of Materials, Thermal and Statistical Physics, Advanced Experimental Physics, Advanced CAD, Computational Physics, Mechanics of Materials, Finite Element Analysis

Languages: English (Native), German (Native), Russian (Fluent), French (Advanced)