Alexander Tschinkel

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New York, NY

Education:

University of Utah, John & Marcia Price College of Engineering Fall 2024-Present
PhD. Mechanical Engineering, Experimental Fluid Mechanics, Advisor: A. Balantrapu

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:* Dynamics Team Mechanical Engineer(2023-2024), Avionics Team Mechanical Engineer (2022-2023), Winners of the AIAA Reusable Launch Vehicle Award (2023)

Research Experience:

University of Utah TRACE Lab (Fall 2024-Present)
PhD Student
Performed research project on the use of photoelastic sensors for the measuring of shear stress in a turbulent boundary layer.

NYU Center For Soft Matter Research: Pine Lab Spring 2022-Spring 2024
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:

University of Utah Department of Mechanical Engineering Fall 2024
Teaching Assistant
Worked with 1 other teaching assistant to grade weekly quizzes and homework's for a class of 140 students.

NYU Physics Department Tutoring Fall 2022-Spring 2024
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.

Certifications:

FE Mechanical Engineering Licensed with MN AELSLAGID

Skills:

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

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