

Jack Liedel

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Profile:

Experienced and driven 4.0 GPA (97%/100%) mechanical engineer with background in research, philanthropy, business development and academics. Seeking engineering summer internship/research.

Education:

Vanderbilt University, Nashville, Tennessee - Bachelor of Engineering June 2023 - May 2026
Stevens Institute of Technology, Hoboken, New Jersey - Bachelor of Engineering August 2022 - June 2023
Christian Brothers Academy, Lincroft, New Jersey - High School September 2018 - May 2022

Awards:

Dean's List - Fall 2022 & Spring 2023 semester.

CH 116 Scholars - Highly selective chemistry course whose admission is based upon outstanding grades in previous chemistry courses.

Edwin A. Stevens Scholarship - Highly selective scholarship awarded to high achieving students based upon academic and extracurricular success.

NASA-NJSGC Space Grant Awardee - Highly selective grant awarded to distinguished groups who participate in NASA-backed programs.

Top Scholar-

PEP 111: Ranked #1 out of 300 students in Mechanics course (PEP 111).

MA 125: Ranked #2 out of 550 students in Linear Algebra course (MA 125).

MA 126: Ranked #4 out of 550 students in Multivariable Calculus course (MA 126).

MA 122: Ranked #11 out of 550 students in Integral Calculus course (MA 122).

Summer Undergraduate Research Fund Awardee - Grant awarded to those who are chosen to partake in the Summer Undergraduate Research Project.

Experience:

Vanderbilt Aerospace Design Laboratory - Associate Engineer September 2023

- Assisted in design and construction of rocket and Payload Deployment System with nationally top ranked (#1) laboratory for NASA Student Launch Competition.

Vanderbilt Rocket Propulsion Group - Co Founder/Lead Engineer September 2023

- Led team of students to design and manufacture various propulsion systems [i.e. rocket and jet engines].
- Project will participate in national NASA competition by September of 2024.

RocSat-C, NASA - Research/Project September 2022 - August 2023

- Team member of RocSat-C program representing Stevens Institute of Technology.
- Researched experimental procedures for successful testing on NASA's Terrier-Improved Orion sounding rocket.
- Produced payload capable of intaking atmospheric samples post-fractionation & post-shock and testing single-board computers using modified benchmarking software during rocket flight.

Summer Undergraduate Research Project | Parziale Research Group - Research May 2023 - July 2023

- Helped create modified Helmholtz Resonator to measure harmonic frequencies of shock inside hypersonic shock tunnel.
- Modeled hypersonic turbulent boundary layer in shock tunnel.

Bifurcation and Nonlinear Dynamics Research with Dr. Pavel Dubovski - Research April 2023 - August 2023

- Programmed model with python to detail various constraints on logistics map (Fiegenbaum bifurcation diagram).
- Explored implications of results on existing chaotic behavior models.

Mathnasium, Freehold, New Jersey - Mathematics Tutor

May 2022 - August 2022

- Tutored mathematics levels ranging from SAT Math and Calculus, to lower grade levels.
- Executed managerial tasks including the organization of student curricula and correction of exam progress.

Access to Esports, Holmdel, New Jersey - Executive Director/Founder

June 2021 - August 2022

- Instructed computer technology seminars and donated \$1000s worth of technological resources to the underprivileged.

CBA Apprenticeship Project, Lincroft, NJ - Head of R&D

January 2022- April 2022

- Designed and developed a product which raised second largest sum in the project's history (> \$3000). All profits were donated to a nationally recognized nonprofit.

Hunuu Health, Atlanta, Georgia - Intern

May 2021 - September 2021

- Worked extensively on data projects by accumulating research for the company.
- Assisted in writing published works detailing modern health technology.

Extracurricular Experience:

Student Government Association- Senator

- Elected by Stevens student body to spearhead and manage ambitious campus wide initiatives.

Aboard - Advocate

- Highly selective position which represents the entirety of Stevens Institute of Technology in specific issues often involving ethics, inclusion and equity.

Rules Committee - Committee Member

- Committee of scholars who oversee and revise the constitutions of student-led organizations on campus.

DNI Committee - Committee Member

- Committee of students who revise campus policy to make it more accessible to a diverse array of students.

Math Team - Member

- Competes in national mathematics competitions like the William Lowell Putnam Mathematical competition.

Philosophy Salon - Member

- Group of professors and students who actively engage in ethical, metaphysical and epistemological inquiry.