Jack Miloslavsky
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SUMMARY
I am pursuing a Masters in Mechanical Engineering looking for an internship for the summer of 2026. I have excelled in an international lab and have led an in-depth technical project at a government facility, prioritizing innovation, analytical data, and attention to detail. I am extremely collaborative, have refined problem-solving skills, and am willing to do whatever it takes in order to succeed.

EDUCATION
UC Davis -Davis, CA   5/2025-present
Degree: MS in Mechanical Engineering
Clubs: UC Davis EcoCAR, UCD Fencing Club

Purdue University -West Lafayette, IN   8/2021-5/2025
Degree: BS in Mechanical Engineering
Clubs: American Society of Mechanical Engineers, Purdue Fencing Club

WORK EXPERIENCE
UC Davis EcoCAR Challenge
System Design Integration Graduate Lead   9/2025-present
- Integrated project management plan to maximize the development of skills for 20+ engineers using Jira and Confluence
- Developed 18+ test plans for calibration with automated post-processing scripts to meet necessary maturity over 4 months
- Implemented timelines for part creation ensuring necessary lead times for manufacturing and procurement to install new, structurally sound fixtures in 2 months
- Assisted in HIL control system testing and in FEA-based structural analysis to verify design safety factors
- Used set safety requirements to drive quality inspections in wire connections, fastener sizing, and hard stops in code

Stanford Linear Accelerator Center   6-8/2024
Mechanical Engineering Intern
- Utilized FEA in Ansys Workbench and experimental testing to determine damping coefficients for metal frame surrounding a high-precision test area
- Created Standard Operating Procedures for testing, modeling, suspension, and FEA simulation
- Designed and tested two parts, a sheet metal spreader bar and 3D-printed end cap, to hold loads of up to 400lbs
- Increased damping of steel beam structure by ~300% which increased the precision of the testing device
- Created and organized technical documentation of 100+ parts for laser ejection, injection, and compression tiles
- Developed rectangular interpolation method to combine data sets for application to implement across a variety of tests

Mudawar Thermal Systems   1-5/2025
Research Team Lead/Buyer
- Led group of 5 in design, modeling, manufacturing, and testing processes for creation of microchannel cold plate
- Drafted technical report based on 20 data sets for heat removal values up to 500 W/cm^2
- Optimized design parameters using coupled CFD and FEA models in addition to setting safety tolerance limits
- Manufactured cold plate from aluminum via CNC based on 25 part digital twin created in SolidWorks
- Implemented industry-standard Lytron Chiller into system, which increased modeled system efficiency by ~30% from previous designs

Medical University of Vienna   6-8/2023
Research Assistant
- Calibrated FDM, resin 3D printers, durometers, micrometers, and more to ensure accurate data collection
- Performed experiments and collected/analysed data via Excel macros to assist with ultrasound research and masters' theses
- Obtained letter of rec from Peter Homolka for contributions to manufacturing and data management for multiple theses
- Co-Authored published paper in SPIE magazine, for my assistance in equipment calibration, data collection, and analysis

COMPLETED ENGINEERING PROJECTS
Piezoelectric Energy Group project   1-5/2024
Member of ASME group
- Implemented GD&T concepts for sheet metal part tolerances as low as 0.03mm
- Conducted part failure analysis on interlocking parts using FEA, inspecting multiple potential fracture modes
- Learned integration of piezoelectrics as power sources in tiles and verified circuits with multimeter

NOTEABLE TECHNICAL SKILLS
- **CAD/3D PRINTING-** Experienced in SolidWorks, Fusion 360, NX, Autodesk Inventor, and learning REKIT
- **MACHINING-** Trained with mill, lathe, table saw, drill press, and most handheld power tools. Knowledgeable in GD&T and quality engineering concepts.
- **FEA and CFD-** Fluent in Ansys for CFD and FEA. Also Fluent in NX for FEA.
- **PROGRAMMING-** Foundational knowledge in Python and Java. Created macros for Excel data refinement and experienced with Matlab. Skilled in system modeling with LabView.