

Danya Kogan

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA

Bachelor of Science in Mechanical Engineering; Additional Major in Robotics, Minor in Anthropology. GPA: 3.72/4.0. May 2027

EXPERIENCE

Undergraduate Researcher, Zoe2 Field Rover, *Carnegie Mellon University Planetary Robotics Lab*, March 2025 – Present

- Design, fabricate, and verify highly-critical components for a field robot using Solidworks CNC machining
- Assist in testing a driveable robot to gather data on robot performance

Undergraduate Researcher *Carnegie Mellon University Microrobotics Laboratory* October 2023 – December 2024

- Designed, documented, and constructed small-scale spring-based jumping robots using SolidWorks

PROJECTS

Real-Time Transit Map, *Personal Project*, May 2026 – Present

- Designing and fabricating a 450×450mm 3D-printed physical map with LED-illuminated, translucent road segments that display real-time bus positions using live transit API data
- Building Raspberry Pi software to convert live GPS coordinates into LED position updates; integrating 7-segment displays for arrival time estimates

Zine Folding and Stapling Assist To, I *Personal Project*, December 2025 – Present

- Designed a knife-fold and stapling mechanism to semi-automate zine assembly using 3D printing, laser cutting, and hand tools, after an earlier buckle-fold approach proved unreliable in testing
- Iterating on stapler alignment and page-loading usability based on test-run data and user feedback; planning open-source release

Cycloidal Gearbox, *Carnegie Mellon University Robotics Club, Mechanical Lead*, March 2024 – April 2026

- Designed and fabricated a low-cost cycloidal gearbox from Delrin and steel using manual lathe, mill, and laser cutter for the Robotics Club's
- Designed and built custom test rigs to characterize dynamic and static torque performance
- Presented findings at CMU's Meeting of the Minds Undergraduate Research Symposium and documented manufacturing instructions via GitHub Wiki

Soft Robotic Manipulator, *Personal Project*, 2022 – 2023

- Designed a parametric silicone-finger mold and assembled multiple actuators into a soft manipulator
- Built and programmed an Arduino-based syringe pump to precisely control the manipulator pneumatically

ACTIVITIES & LEADERSHIP

Carnegie Mellon Robotics Club, *Senior Member*, Fall 2023 - Present

- Led quadruped robotics project as the mechanical lead

Students for International Labor Solidarity, *Core Member*, Fall 2024 – Present

- Facilitate weekly chapter meetings and coordinate with national organization leadership to align chapter activities with campaign strategy
- Organize and present public lectures on university apparel supply-chain transparency to the CMU student body as part of the "Follow the Thread" campaign
- Helped establish an ongoing working relationship with the university licensing director on supply-chain transparency, where none previously existed, through sustained engagement over multiple semesters

README Campus Publication, January 2024 – Present

Red Robot Hackathon 3rd Place and "Best Use of Rapid Prototyping" Award, *presented by Caterpillar*, October 2023

SKILLS

CAD Software: SolidWorks, Fusion 360, Onshape

Programming: Python, C++, Java, MATLAB, JavaScript, Arduino, CircuitPython, SQL, ROS

Machines: Manual Mill, CNC Mill, CNC Router, Manual Lathe, Laser Cutter, FDM 3D Printer, SLA/DLP 3D Printer

Miscellaneous Technical: Linux, Microcontrollers, FEA, Ansys, MasterCAM, Fusion 360 CAM