

Sidney Nimako

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EDUCATION

Carnegie Mellon University

Master of Science in Robotics, May 2025

Bachelor of Science in Mechanical Engineering minor in Robotics (3.52/4.0), May 2023

EXPERIENCE

Hardware Engineering Intern | DoorDash Labs | Summers 2022, 2023 | San Francisco, CA

Summer 2022, Summer 2023 | San Francisco, CA

- Designed and constructed the electrical system for a 4 quadrant dynamometer including sensing and drive systems
- Modified motor controller C firmware to enable sensor interaction
- Wrote MATLAB software to enable control of the dynamometer and sensor data collection

Undergraduate TA | Carnegie Mellon University | Spring 2023 | Pittsburgh, PA

- Delivered course content on Dynamics Systems and Controls to 90+ students
- Conducted office hours to provide content and programming assistance

Undergraduate Researcher | Robomechanics Lab | Spring 2023 | Pittsburgh, PA

- Created functions approximating the inertial and geometric impacts of active spines on quadrupedal robots
- Created simulation environments for accessing robot performance

Robotics Intern | Facebook AI Research & CMU Robotics Institute | Summer 2021 | Pittsburgh, PA (Remote)

- Redesigned a multi-digit robotic hand to decrease envelope by 20%, increase range of motion and improve assembly
- Created documentation on the assembly process and use for the existing hand design
- Ran consistency and robustness tests on soft, capacitive sensors

PROJECTS Additional Projects available at <http://snibo.me>

Mapping and Payload Robot (MAPR) | Robotics Capstone | Robotics Capstone

- Built an autonomous indoor delivery robot using ROS1 and off the shelf components
- Led development of mobility subsystem in software and hardware

Phlebot | Mechatronic Design | Mechatronic Design

- Designed and prototyped an autonomous venipuncture robot powered by a Jetson Nano and 3D printer driver
- Led electromechanical system integration and co-led mechanism design

Jenga Tower Robot | Robot Kinematics and Dynamics | Robot Kinematics and Dynamics

- Implemented control software for a 4-dof robotic arm to build a jenga tower in record time

Macropad Keyboard | Independent | Independent

- Created hardware (mechanical and PCB) and firmware for a 7-key mechanical keyboard with a built-in rotary encoder

COURSEWORK

Robot Kinematics and Dynamics | Imperative Programming | Human Robot Interaction | Robotic Systems Engineering | Mechatronic Design | Modern Control Theory

SKILLS

Digital: Python, C++, MatLab, Javascript, LaTeX, C, KiCAD, Linux, Solidworks, Blender, Unity
Physical: 3D Printing, Mill, Lathe, Soldering, Laser Cutting, Circuit Design

ACTIVITIES & HONORS

Dean's List | Spring 2022, Fall 2022, Spring 2023

SDC Buggy | 2021 - 2022

Carnegie Mellon Rocket Command | 2019 - 2021

Outstanding Citizenship Award (2019) *from The National Society of the Sons of The American Revolution*

University Honors (2023) *from Carnegie Mellon University*

Departmental Honors (2023) *from Department of Mechanical Engineering*