Sidney Nimako

✉ snimakob@andrew.cmu.edu | ☎ (331) 305-1138
🌐 snibo.me | in snibo | ⌂ snibo13

EXPERIENCE

DoorDash Labs | Hardware Engineering Intern
May 2022 - August 2022 | 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

Facebook AI Research & CMU Robotics Institute | Robotics Intern
May 2021 - August 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 and use process for the existing hand design
- Ran consistency and robustness tests on soft, capacitive sensors

Biomotivate | VR Development Intern
May 2020 - August 2020 | Pittsburgh, PA (Remote)

- Designed and implemented prototypes of an addiction rehab app guided by behavioral psychology research
- Built a data collection solution to aid analysis of therapeutic benefits of various experiences
- Built prototype experiences for therapeutic evaluation

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

Jenga Tower Robot | Robot Kinematics and Dynamics
November 2021 - December 2021

- Implemented control software for a 4-dof robotic arm to build a jenga tower
- Performed mechanical maintenance on a Hebi Robot arm
- Completed the task in a course fastest time (11.47 s)

Linkage System | Engineering Design I
October 2021

- Designed a 4-bar linkage system to convert rotary to linear motion that resulted in about 40% actuation time

Power Drill Assistive Product | Engineering Design I
November 2021 - December 2021

- Conducted user surveys to determine complications when using a power drill with wrist tendinitis
- Manufactured a full-scale, functioning prototype of the attachment to improve usability for target group
- Created GD&T drawings for components of the attachment

Macropad Keyboard | Independent
December 2020 + July 2021

- Designed a 7-key mechanical keyboard with a built-in rotary encoder
- Created circuitry schematics and PCB for the board using KiCad
- Wrote C Firmware to allow for multiple profiles of key layouts

EDUCATION

Carnegie Mellon University
Bachelor of Science in
Mechanical Engineering
Minor in Robotics
August 2019 - May 2023
GPA 3.4/4.0

COURSEWORK

Dynamics
Heat Transfer
Robot Kinematics and Dynamics
Engineering Design I
Fluid Mechanics
Stress Analysis
Imperative Programming
Intro. to Electrical Engineering

SKILLS

Digital	Physical
Python	3D Printing
C++	Mill
MatLab	Lathe
Java	Soldering
JavaScript	Circuits
Latex	Laser Cutting
C	Arduino
Linux	

Software
Unity
SolidWorks
Blender
Unity
Unreal Engine
KiCad
Fusion 360

ACTIVITIES & HONORS

CIT Dean's List (Spring 2022) *from Carnegie Mellon University*

SDC Buggy
2021 - 2022

Carnegie Mellon Rocket Command
2019 - 2021

Carnegie Mellon Racing
2019 - 2020

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

Illinois State Scholar (2019) *from The State of Illinois*