Sidney Nimako

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EXPERIENCE

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
- Optimized an existing hand design for ease of assembly
- Ran consistency and robustness tests on soft, capacitive sensors

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

- Designed and implemented an addiction rehab app guided by behavioral psychology research
- Established an interface system for Oculus Go controller and headset input
- Built a data collection solution to aid analysis of therapeutic benefits of various experiences
- Built prototype experiences for therapeutic evaluation

PROJECTS

Snibo.me | Independent
October 2017 - Present

- Personal portfolio website built from HTML, CSS and JavaScript
- Contains additional experiments in design, software, and mechanics

Astronaut's Coat Hanger | Engineering Design I
September 2021

- Designed a coat rack with mass and geometry constraints to sustain a load
- Created a design capable of sustaining over 3000 times its mass

Attitude Correcting Rocket | Carnegie Mellon Rocket Command
August 2020 - April 2021

- Developed software to run a PID control loop interfacing multiple sensor inputs in c

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
- Revised in July 2021 to adjust PCB traces and key layout

Underglow Circuit | CMU Formula SAE
August 2018 - May 2019

- Designed a lighting control board to interface with the race car
- Created Altium schematics for the board using CMR standardized templates

EDUCATION

Carnegie Mellon University
Bachelor of Science in
Mechanical Engineering
Minor in Robotics
August 2019 - May 2023
GPA 3.1/4.0

COURSEWORK

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

SKILLS

Digital

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

Carnegie Mellon Rocket Command
2019 - Present

SDC Buggy
2021 - Present

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*