

Morgan Stratton

Education:

Bachelor of Science, Mechanical Engineering May 2027
Rose-Hulman Institute of Technology, Terre Haute, IN 4.0 GPA
Minor: Spanish
Status: First-year student with sophomore standing
Relevant Coursework: Graphical Communications, Intro to Design, Computer Programming
Waterloo High School Diploma, Valedictorian May 2023
Waterloo, IL 4.4/4.0 GPA

Experience:

Turning Point Wellness Center, Waterloo, IL April 2023 - July 2023
Chiropractic Assistant

- Ran initial screenings on patients and filed patient records
- Administered heating pads, massage gun therapy, and removal of acupuncture needles

Waterloo Country Club, Waterloo, IL February 2022 - July 2022
Groundskeeper/Dishwasher

- Kept golf course clear of debris and rebuilt sand bunkers
- Cleaned and disinfected all dishes and cooking areas and surfaces

Activities:

Rose-Hulman American Society of Mechanical Engineers, Treasurer Fall 2024-present
Rose-Hulman Human Powered Vehicle Team Fall 2023 – present
Rose-Hulman NCAA D3 Men's Cross Country Team Fall 2023 – present
ACES (Academic Challenge) Winter-Spring 2023

- 2nd Place Individual Chemistry at Regionals and Sectionals

Waterloo High School Cross Country & Track Team, Team Captain 2019 - 2023

- Assisted coaches by leading workouts and motivating teammates
- All-Conference and All-Academic Conference 2022 - 2023

Personal Projects (See [Portfolio website](#) for full descriptions, pictures, and other projects)

Touch Sensitive Light Up LED Epoxy Resin Coffee Table

- An Arduino driven programmable LEDs with Touch Sensor Interface underneath a wood and epoxy tabletop.
- Skills learned and involved: *woodworking (machinery and hand tools), epoxy/resin, circuit design, mechatronics interfacing, soldering, programming, mechatronics (Arduino)*

Electromyography Sensor Interface with Arduino

- Using a MyoWare EMG sensor, I used an Arduino to control servos, LED strips, and relays to perform various tasks (Ex. Translating the movements of my arm to a metal rod with a servo).
- Skills learned and involved: *data conversions, programming, mechatronics (Arduino), physical design, hardware (servos, LEDs, relays)*

Magic Mirror

- Powered by a Raspberry Pi, the mirror has multiple widgets displaying. Arduino controlled LEDs surround the mirror.
- Skills learned and involved: *woodworking and finishing, Raspberry Pi, Arduino, hardware*

Skills:

Software: SolidWorks, MATLAB, Python, HTML, CSS, JavaScript, C++, Arduino
Technical: 3D printing, Woodworking,
Hardware: Soldering, Circuit Design/Assembly, Arduino, Raspberry Pi
Language: Conversational Spanish, *Illinois Seal of Biliteracy*