Joseph Shneyderman

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Education

Northeastern University *Exp. Graduation: May 2024*

Candidate for B.S. in Mechanical Engineering

Coursework completed: Thermodynamics, Statics, Material Science, Cornerstone for Engineering 1-2

Coursework in progress: Fluid Mechanics, Dynamics, Mechanics of Materials, Robot Dynamics and Controls

Extracurricular activities: Northeastern Electric Racing – Drivetrain and Manufacturing

Work Experience

Data Collection Specialist/Test Technician - DEKA R&D, *Manchester NH* *May 2021-Present*

- Collected and curated 1,000,000+ images to better improve machine learning models for object detection and traffic light recognition.
- Assembled 12 unique testing machines to colitate terabytes of data collection.
- Utilized Python to automate processes within collection and curation saving 2+ hours per collection effort.
- Organized data pipeline to achieve efficient workflow.
- Headed a small team to parse through 3 terabytes of archived data, curating for specific instances.
- Participated in 2+ test operations per day of robotic delivery systems, providing detailed feedback on functionality and failures.

Delivery Driver/Cashier Panini Pizza Co, *Middleton MA* *August 2018-2020*

- Facilitated $2,000+ of sales daily, processing up to 130 orders a night.
- Communicated with staff and customers effectively, showcasing hospitality, work ethic and perseverance.

Academic Projects

Northeastern Electric Racing *September 2021-Present*

- Collaborated on a team to design test cases for the differential to ensure that casing material would not degrade while operating.
- Machined 15+ different parts for the battery box, motor controller shelf and other various projects.
- Designed and 3D printed a port plate using SolidWorks to allow for sealing and resealing of the differential, optimizing pressure distribution to prevent leaks and bending of material.

Robots – Cornerstone for Engineering Final Projects *Fall 2020-Spring 2021*

- Fabricated a medicine delivery robot, utilizing an Arduino and 4 servo motors to eliminate close personal contact between hospital staff and patients, as a means of reducing the spread of COVID-19.
- Developed and constructed a robot incorporating 2 Arduinos to take and log customers' orders, reporting to the kitchen and delivering the orders back to the customer.

Personal Projects

3D Printing *November 2021-Present*

Designed and printed 40+ unique parts for personal and professional use. Learning the basics of 3D printing and the design process.

Audi Motor Replacement *June-October 2019*

Repaired an Audi from a non-running state to a functional state. Replaced motor and other failing components. Collaborated with a fellow engineer to restore the vehicle with self-learned knowledge, incorporating troubleshooting and research skills.

Skills/Interests

Programming: C/C++, Python

Skills: Arduino, Robotics, CAD, Microsoft Office Suite, SolidWorks, MATLAB, 3D-Print Experience, Linux, Image Processing, Lab Experience, Manual Milling, Horizontal and Vertical Bandsaw, MIG Welding

Languages: German and Russian

Interests/Hobbies: Automation, Cars, Robotics, Hiking, Formula 1, Traveling, Football, Running

Volunteer Experience

German National Honors Society Co-President *2019-2020*

- Led interactive lessons in German for a group of 5 middle school students.
- Organized 10+ community-based events, volunteering 5+ hours a week.