John Robert Schloen

Portfolio: https://rschloen.github.io/portfolio/ | Email: rschloen@gmail.com

EDUCATION

- Northwestern University McCormick School of Engineering, Evanston, IL
    - Master of Science in Robotics   December 2020 (Expected)
- George Washington University School of Engineering and Applied Science, Washington, D.C
    - Bachelor of Science in Biomedical Engineering   May 2019

TECHNICAL SKILLS

- Programming: MATLAB, Python, C, Robot Operating System (ROS), Gazebo, VREP
- Mechanical: SolidWorks, Multisim
- Other: LabChart, ArcGIS, Agisoft Photoscan

PROJECTS

- **Surface EMG Controlled Robotic Hand**   January – March 2020 (In Progress)
    - Using surface electromyography(EMG) for real time control of a robotic hand
    - Using machine learning (Deep Learning) for classification of gestures from muscle signals

- **Automatic Checkers Playing Robot**   November – December 2019
    - Implemented Game Artificial Intelligence (AI): Minimax algorithm with alpha beta pruning
    - Worked with a group to teach Rethink's Baxter robot how to play checkers
    - Developed a ROS package that integrated computer vision, artificial intelligence, and Moveit with a state machine using SMACH

- **Semi-autonomous Robotic Ultrasound System**   August 2018 – May 2019
    - Worked with a group using scrum management to develop a robotic ultrasound system to take ultrasound images of patients semi-autonomously
    - Developed software expertise in ROS, Gazebo, and PyQT
    - Team was awarded second place for this project in annual school-wide competition, Pelton Award for Outstanding Senior Design Project

EXPERIENCE

- **Laboratory Research Assistant**   June 2017 – June 2019
    - Member of the Mendelowitz and Kay Labs at George Washington University
    - Worked daily with rats giving injections and running stress/exercise protocols
    - Analyzed ECG data using LabChart software
    - **Contribution**
        Obtained and analyzed data to be used in future publications and grant proposals.