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: Python, Robot Operating System (ROS), Machine Learning, MATLAB, C, Gazebo
- 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.