

CPRE 491

Team 45

Project Title: Prototyping and Testing Embedded Machine Learning in an Application

Date: 10-17-2021

Weekly Report #4

Members: (With team roles)

- Amy Wieland: Project Manager
- Tyler Ingebrand: Project Manager & Machine Learning Manager
- Nathan Bruck: External Hardware/Arduino Manager
- Yi Ting Liew: Task Board Manager
- Sean McFadden: Machine Learning Manager
- Nayra Lujano: Research Manager
- Chris Hazelton: Security Manager

What we've accomplish in the past week / what we've been researching:

- Amy: Contributing to testing report and lightning talk, skimmed a few other research articles about ML in undergraduate courses
- Tyler: Experimenting with mountain car
- Yi Ting: Proceed by working on testing assignments and slides; watch recorded workshop (Imagine 2021)
- Sean: Debugging the mountain car problem and experimenting with training using Google Colab.
- Nathan: Contributed to the testing assignments. Continued the coursera course on machine learning. Research on I2C communication for the robot and the existing code already created by Peto.
- Nayra: Worked on Coursera course for machine learning.
- Chris: Contributed to the testing assignments

What we are planning to do in the coming week (short 1-2 sentences on what you will be doing):

- Amy: Look into open AI gym information provided by Tyler
- Tyler: Try to create a NN for Ant - the basic MuJoCo simulation
- Nathan: Continue doing the Coursera ML course. Experiment with the I2C bus protocol using a dev board.
- Yi Ting: working on the upcoming assignments once it releases; continue with research of ML
- Sean: Learn about Deep Deterministic Policy Gradient (DDPG), the algorithm we will be using for our RL model.
- Nayra: Complete coursera course. Check in with team and documentation progress.
- Chris: Start/finish the coursera course

Issues or concerns we had in the previous week (will be brought up in a meeting for a full conversation):

- Amy: None
- Tyler: None
- Nathan: None
- Yi Ting: none
- Sean: None
- Nayra: None
- Chris: None