Manuel Meraz

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EDUCATION

Bachelor of Science, Computer Science and Engineering
University of California, Merced,
3.2 GPA, May 2018

Relevant Coursework
Data Structures, Algorithms, Computer Architecture, Intro to Robotics
Calculus 1-3, Physics 1-2, Linear Algebra, Discrete Mathematics, Intro to Differential Equations

EXPRIENCE

Robotics Software Engineer Intern — Present
University of New Mexico,
- As a part of the Moses Biological Computational lab, I am working on implementing a central-place foraging algorithm (CPFA) using their Swarmie rovers in Gazebo using the Robotic Operating System Framework (ROS) using C++

Robotics Software Engineer Intern — Summer 2016
University of New Mexico,
- Programmed Swarmies to use a gripper autonomously for rover resource gathering
- Developed a tracking system for resources detected by rovers
- Leadership position guiding less experienced interns with ROS, C++, and the Swarmathon code base

Python Grader — June 2015 - June 2016
Art of Problem Solving,
- Helped hundreds of students by offering constructive feedback, which includes checking for docstrings, readability (PEP 8), OOP, algorithms, and basic design
- Improved written communication by tailoring feedback based on student understanding of assignment
- Developed clear communication required to meet expectations for class required by professor

SKILLS

Proficient: Python, C++, Bash, Robot Operating System (ROS)
Prior Experience: C, MIPS, Java
Fluency in Spanish

PROJECTS

github.com/ManuelMeraz

NASA Swarmathon Competition 2016-2017, Team Lead C++ — Spring 2016-2017
- Taught workshops in ROS, Unix, C++ and git
- Building rovers to be used for competition
- Developing swarm search algorithms using ROS
- Public speaking skills developed during bi-weekly reports with mentor

Year of Programming, C++/Git — Spring 2017
- Created github organization that releases challenges to be peer reviewed through pull requests
- Teach and help participants with github and algorithms in slack
- Developed grading scripts, documentation and review code