Paxton Scott

Computational Physics

970.946.5188
paxtonsc@stanford.edu

Skills

I am interested in problems that fall in the intersection of physics and data science. In my academic and professional work, I have applied deep learning techniques to better understand the deblending problem with large sky surveys, worked on a machine vision application to calculate the relative position and orientation of a cubesat, built a plotter robot on a bare metal raspberry pi, and worked with full stack IoT development.

A list of topics I have studied and technologies I have worked with include: Python, Pytorch, Numpy, Data Viz with Matplotlib, OpenCV, ROS, bare metal C, C++, Java, JavaScript, Node.js, and React.

During the school year I work as a tutor for Linear Algebra, Multivariate Calculus, Differential Equations, Mechanics, Probability, and Electricity & Magnetism.

Experience

Modeling and Simulation Intern / Boecore
June 2021 - August 2021, Colorado Springs, CO

Worked on a DoD project C2BCM with security clearance as a modeling and simulation intern developing applications in C++ and Java with an emphasis on Object Oriented Programming and Test Driven Development.

Software Intern / StoneAge
December 2020 - March 2021, Boulder, CO

Full stack with Node.js/React and IoT device development with the AWS IoT core for StoneAge's sentinel robot.

LSST Physics Research Fellowship / Rubin Observatory
June 2020 - August 2020, Stanford, CA

Developed a RNN to emulate the Observatory's deblending pipeline in order to better understand the systematic bias for weak lensing probes from unrecognized galaxy-galaxy blends.

Education

Stanford University / Computational Physics
September 2018 - PRESENT, Stanford, CA

Stanford Space Initiative - Satellites team | Science & Technology editor Stanford Daily | Mountain Bike Team | GPA 3.6

Awards

Top Project in CS107E (2D plotter drawing robot) built on a bare metal Raspberry Pi. President of the winning team at 2017 International Space Settlement Design Competition.