Sean Farhat

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sfarhat.github.io

Education

University of California, Berkeley
B.S., Electrical Engineering and Computer Science 2016 - 2020
GPA: 3.74/4.00

Coursework: Optimization, Artificial Intelligence, Machine Learning, Robotics, Probability, Algorithms and Complexity, Signal Processing, Embedded Systems, Cognitive Neuroscience, Machine Structures, Data Structures, Computer Security

Experience

Berkeley Artificial Intelligence Research Lab 2019-Present
Researcher with Prof. Laurent El Ghaoui
Topics: Robust optimization, implicit deep learning

Berkeley SWARM Lab 2018
Researcher with Prof. Kris Pister
Topics: Low power convolutional neural networks, autonomous microrobots

Accenture Labs 2019
Systems & Platforms Research Intern
Patent Pending: A Digital Twin for Improved DevOps in Robot Applications

Teaching

CS 61C: Machine Structures 2018-Present
Discussion, Lab, Content, Administrative TA
Responsibilities: Taught weekly discussion sections, labs and office hours each week to 45+ students with an average rating of 4.8/5; created course content such as labs, recitation worksheets, projects, autograders, topical notes, walkthrough videos, and exams

Eta Kappa Nu 2017-Present
Tutoring Officer (2017-2019), Department Relations (2019)
Responsibilities: Organized and trained 50 tutors to lead open office hours, created review session slides; developed EECS undergradate experience survey, official department tour guide, organized faculty lunches, created course map

Projects

Pendulum Bot
Link: https://cpkurotori.github.io/pendulum-bot-website/
Programmed a robot to model, predict, and catch a ball on a pendulum using only camera input via 5 nodes: color, depth, model construction, prediction, and actuation

Kobuki Kart
Link: https://github.com/njriasan/SPOOKY-KOBUKI-KART
Mario Kart using Roombas (Kobukis); involves Bluetooth connections from Nintendo Switch remotes to Kobukis, Finite State Machine logic for smooth actuation, and nodes to communicate with sensors functioning as powerups/obstacles on track

Mind Reader
Link: https://github.com/sfarhat/Mind-Reader
Used dimensionality reduction techniques to extract features and decode brain activity

Technical Skills

Proficient: Python, Java, C, ROS, Gazebo, Git, RISC-V, Unity, LaTeX
Familiar: C#, C++, SQL, HTML, CSS, jQuery, Javascript, Bootstrap

Awards & Recognition

Outstanding GSI Award, Regents' and Chancellor's Scholarship, Tau Beta Pi, Eta Kappa Nu