PEGGY (YUCHUN) WANG

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EDUCATION

STANFORD UNIVERSITY – B.S. CANDIDATE IN **COMPUTER SCIENCE: ARTIFICIAL INTELLIGENCE TRACK** | AI/ROBOTICS

Relevant Coursework: CS230: Deep Learning, CS221: Artificial Intelligence, AA274: Principles of Robotic Autonomy, CS161: Algorithms, CS238: Decision Making Under Uncertainty, CS110: Computer Systems, MATH51: Linear Algebra and Differential Equations, CS103: Math Foundations of Computing

WORK EXPERIENCE

SOFTWARE ENGINEERING INTERN, LYFT AUTONOMOUS VEHICLES DIVISION (LEVEL 5 OFFICE) – JULY 2018 - SEP. 2018

- Created pedal model for vehicle dynamics in autonomy motion planning and controls team by:
  - Building Python plotting tools for scatter plot after linearly interpolating timestamps of different fields
  - Building control service in C++ with publisher/subscriber system to automatically test throttle and brake system at test site
  - Fitting and validating function model using Python and Matlab, improved previous model by 1.5x
- Implemented sensor fusion to integrate vehicle model into trajectory planning on test vehicles and simulation

VISITING RESEARCHER, ADVANCED ROBOTICS LAB, UNIVERSITY OF EDINBURGH – JUNE 2018 - JULY 2018

- Performed analysis of Deep Reinforcement Learning Networks for Robotic Controls by:
  - Writing Python and Bash scripts to automatically collect data from OpenAI simulation environment for humanoid robot balancing
  - Conducting systematic data analysis using Matlab by creating phase plots and modeling control policy of agent

PROJECT EXPERIENCE

COMPUTER VISION TEAM MEMBER/DEEP LEARNING (CS230) PROJECT, UNMANNED AERIAL VEHICLE (UAV) CLUB, STANFORD UNIVERSITY – OCT. 2017 - JUNE 2018

- Detected, localized, and classified the shape, color, and alphanumeric character of a poster object from an aerial image by:
  - Generating unique dataset of over 10,000 images by augmenting shapes and alphanumeric characters from EMNIST dataset onto aerial background image
  - Training YOLO network and implemented OpenCV SURF algorithm to localize objects
  - Developing a Convolutional Neural Network using Keras to classify alphanumeric characters
  - Utilizing k-means clustering to segment objects from background for color classification

SKILLS

- Proficient in C++, Java, Python, Git, C, Matlab, C#
- Used tools and libraries such as: ROS, OpenAI Gym, Unity, Keras, NumPy, plot.ly, and OpenCV

EXTRACURRICULAR ACTIVITIES

LEAD EVENT ORGANIZER, STANFORD ROBOTICS CLUB

- Helped grow team from 20 to 60+ members, focusing on community development and event organization, lead organization of events such as Hacking Hours, Coffee Chats, and Socials

HACKOVERFLOW HACKATHON CO-CHAIR, STANFORD WOMEN IN COMPUTER SCIENCE

- Lead organization of Stanford's annual HackOverflow Hackathon

Additional project information and experience may be found at peggyyuchunwang.github.io