PEGGY (YUCHUN) WANG

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EDUCATION

STANFORD UNIVERSITY
M.S. (JUNE 2020), B.S. (JUNE 2020) IN
COMPUTER SCIENCE: ARTIFICIAL INTELLIGENCE TRACK
AI/ML/ROBOTICS

COURSEWORK

- Machine Learning (CS229)
- Robot Perception and Decision Making (CS336)
- Reinforcement Learning (CS234)
- Computer Vision (CS231N)
- Deep Learning (CS230)
- Natural Language Understanding (CS224U)
- Algorithms for Optimization (CS361)
- Principles of Robotic Autonomy (AA274)
- Artificial Intelligence (CS221)
- Computer Graphics (CS248)
- Algorithms (CS161)
- Computer Systems (CS110)
- Linear Algebra and Differential Equations (MATH51, MATH104)

PROJECTS

- VacAItionary: An AI Travel Itinerary Planner

SKILLS

- Proficient in C++, Python, Git, Matlab
- Used tools and libraries such as: Pytorch, Keras, Tensorflow, Numpy, ROS, OpenAI Gym, and OpenCV

EXTRACURRICULARS

Lead Event Organizer, Stanford Robotics Club

Sponsorship Chair, Stanford Women In Computer Science (WiCS)

Hackoverflow Hackathon Co-Chair, Stanford Women In Computer Science (WiCS)

WORK EXPERIENCE

SOFTWARE ENGINEER, ML @ FACEBOOK – AUG. 2020 - PRESENT

- Build Machine Learning models to detect and stop payments fraud

SOFTWARE ENGINEERING INTERN @ LYFT SELF-DRIVING (LEVEL 5) – JUNE 2020 - AUG. 2020

- Worked on decision making at stop intersections for Behavior Planning Team

SOFTWARE ENGINEERING INTERN @ FACEBOOK AR/VR, OCULUS – JUNE 2019 - SEP. 2019

- Computer Vision, AI Systems Team in Oculus
- Designed and created end-to-end pipeline for camera reprojection of ground truth depth data and integrated into data collection system, improved efficiency by ~230%
- Created algorithm to speed up data processing by ~30%
- Created visualization frontend and backend system to compare different depth sensing algorithms using QT and OpenGL

SOFTWARE ENGINEERING INTERN @ LYFT SELF-DRIVING (LEVEL 5) – JULY 2018 - SEP. 2018

- Created pedal model for vehicle kinematics in autonomy motion planning and controls team
  - Built Python plotting tools for scatter plot after linearly interpolating timestamps of different fields
  - Built control service in C++ with publisher/subscriber system to automatically test throttle and brake system at test site
  - Fitted and validated function model using Python and Matlab, improved previous model by 1.5x
- Refactored and integrated vehicle model into control system on test vehicles and simulation, created OpenGL visualization for comparing different models

RESEARCH EXPERIENCE

COMPUTER SCIENCE RESEARCHER @ STANFORD INTELLIGENT SYSTEMS LAB, STANFORD UNIVERSITY – JAN. 2019 - AUG. 2020

- Investigating how infrastructure sensors will affect observations and decision-making for autonomous driving
- Used hierarchical reinforcement learning and utility value decomposition to develop a city-level policy for autonomous driving agents

PROJECT EXPERIENCE

COMPUTER VISION/DEEP LEARNING PROJECT, CS231N CONVOLUTIONAL NEURAL NETWORKS FOR VISUAL RECOGNITION, STANFORD UNIVERSITY – SPRING 2019

- Semantic Image Segmentation for Autonomous Driving Scenarios Combining FCNs, DeepLab, and Attention

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

- Detected, localized, and classified shape, color, and alphanumeric character of a poster object from an aerial image
  - Generated unique dataset of over 10,000 images by augmenting shapes and alphanumeric characters from EMNIST dataset onto aerial background image
  - Trained YOLO network to localize objects
  - Developed a Convolutional Neural Network using Keras to classify alphanumeric characters
  - Utilized k-means clustering to segment objects from background for color classification