CHIQU LI

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Seeking for 2020 Summer Internship

EDUCATION

Columbia University 09/2019 - 12/2020

Master of Science, Mechanical Engineering (Robotics) New York, NY

Wuhan University 09/2015 - 06/2019

Bachelor of Engineering, Power System (GPA: 3.6/4.0) Wuhan, CN

Relevant Courseworks: Cloud Computing, Introduction to Databases, Deep Learning, Robotics, Evolutionary Algorithm

SKILLS

Programming: Python, Java, C/C++, SQL, HTML, CSS, JavaScript, Linux Shell

Technologies & Tools: AWS, IAM, RESTful, Git, Flask, Spring, TensorFlow, Keras, OpenGL, ROS

PROJECTS

Sports Information Interactive Web 09/2019 – 12/2019

- Managed and maintained Baseball Players database with SQL
- Developed functions based on Flask framework and RESTful API to send HTTP requests to access databases

Image Classification Deep Learning Projects 09/2019 – 12/2019

- Trained and visualized multiple CNN models to classify and recognize 10,000 pictures into specific categories and achieved 98% accuracy based on Google Cloud Computing, TensorFlow Keras and TensorBoard
- Collected a dataset including hundreds of landmark pictures at Columbia University, trained a model from scratch and used data augmentation to improve accuracy
- Converted a trained classification model to TensorFlow.js to predict the type of objects in pictures on a webpage

Web Developer Bootcamp 09/2019 – 01/2020

- Got knowledge about full-stack skills from front to back end
- Used HTML, CSS, JavaScript and other techniques like node.js, MongoDB to build websites
- Developed server and database components using Java and MySQL

Genetic Programming(GP) Projects 09/2019 – 12/2019

- Conducted Evolutionary Algorithm(EA) to solve Travelling Sales Person Problem and Symbolic Regression, which reached 1% error in 100,000 generations
- Strengthened GP selection method by using Deterministic Crowding and Hierarchical Fair Competition
- Created and visualized a 3D evolved robot with a variable morphology in C++ and OpenGL

Robot Operating System (ROS) Projects 09/2019 – 12/2019

- Accomplished subscribing and receiving joint movements of robots by python packages in Ubuntu16.04
- Developed a cartesian control and inverse kinematics package to manipulate robot's pose and velocity to ideal positions
- Implemented RRT and A Star algorithm to achieve sampling-based motion planning on KUKA and UR5

INTERNSHIP

Project Analyst, Imperial Vision -- Fuzhou, CN 07/2019 - 08/2019

- Participated in building a hard hat recognition system to increase safety at the construction site by TensorFlow, which can directly recognize humans with or without a hard hat on the head
- Analyzed, visualized over 50,000 face images to assess machine learning models and enhance image quality

AWARDS

Excellent Student Scholarship 2017 & 2018

1st Prize in National Energy Saving & Emission Reduction Technology Competition 2018

Women's Team Championship of the College Student Tennis Competition of Hubei Province 2017