Yuan Yang

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EDUCATION

Rice University, Houston, TX   **Sep. 2020 - Present**

- Master of Electrical and Computer Engineering
- Awards: ECE Future Star Scholarship

University of Glasgow, Scotland, UK   **Sep. 2016 - Jun. 2020**

- Bachelor of Engineering in Electronics and Electrical Engineering (Joint degree program with UESTC)

University of Electronic Science and Technology of China (UESTC), China   **Sep. 2016 - Jun. 2020**

School of Glasgow (UESTC-UoG JEP program: 4+0, **all courses taught in English**, Dual Degree)

- Bachelor of Engineering in Communication Engineering
  - Overall GPA: 3.75/4.00   Core GPA: 3.80/4.00
- Awards: Scholarship for Outstanding Students (20%)   2017-2018 & 2016-2017 & 2018-2019

SELECTED PROJECTS

Thematic Exploration for a THPH Project Archive Website | Python, BERT   **Sep. 2021- Dec. 2021**

Collaborator & Sponsor: Dr. Kirsten Ostherr (Medical Futures Lab, Rice University)

- Generated a word cloud of all projects description as a visualization tool for a "click and search" use
- Utilized topic modeling (Gensim based) to discover thematic connections between projects
- Extracted top-20 keywords in each project's published paper using KeyBERT and trained a keyword clustering model (HDBSCAN) to find closely related project

Auto-Grader for Free Responses | Python, BERT   **Feb. 2021- May. 2021**

Sponsor: Dr. Debshila Basu Mallick, OpenStax (an online courseware)

- Realized the function of grading student answers (text form) for free-response questions as True or False
- Trained a model of siamese network and BERT to compare student answers with reference answers

Self-Driving Robot Car Design | Python, C   **Mar. 2019- Jun. 2019**

Supervisor: Prof. Rami Ghannam (Microelectronics Lab, Glasgow College UESTC)

- Employed edge detection algorithm to identify a rough, irregular brick road with multiple bends via Canny edge detectorTested different threshold values applicable to different intensity of light
- Calculated the effective central value of routes according to the distribution of pixel values
- Controlled the car's steady movement to the effective center value with PID (Proportion, Integral and Differential) Algorithm

SKILLS & EXTRACURRICULARS

Programming: Python, C/C++, Matlab, LaTeX

Tools: PyTorch, Tensorflow, BERT, Git, Numpy, Pandas, Nasa-NLU

Activities: Volunteer, Conservation and Research Centre for the Giant Panda   Feb. 2018 - Mar. 2018

Leader of Color Correction and Post-production, Microfilm Competition, UESTC   Mar. 2017 - May 2017