RESUME

Mutian Xu

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Oct, 1996

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EDUCATION

2018.09-2020.03 ***Universtiy of California, Irvine*** ***Computer Engineering (Master, GPA 3.59/4.0)***

Coursework: Control, Machine Learning & Artificial Intelligence (A+) ; Project in Computer Vision; Introduction to AI; Design and Analysis of Algorithms; Computer Architecture; Operating System; Information Retrieval; Advanced System Security; High-performance Computing; Computer & Communication Networks; Wireless Networking.

2014.08-2018.06 ***Xidian University, China*** ***Electromagnetics Tech (Bachelor, GPA 3.56/4.0)***

Coursework: Linear Algebra; Probability Theory; Numerical Computational Physics; C Language Programming; Microcomputer Principle and System Design; Digital Circuit and Simulated Circuit; Singlechip Microcomputer.

PROJECT EXPERIENCE

2019.07-2020.03 ***Submitted one paper as the 1st author to ECCV2020***

Research Internship at Multimedia Lab, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences (Topics: 3D point cloud processing and Deep learning. Supervised by Prof. Yu Qiao)

- Read related papers and explore the limitations of current methods in 3D point cloud classification and segmentation tasks;
- Mainly based on the property such as permutation invariance of 3D point cloud data to design the novel model combined with different methods and mechanisms;
- Use Pytorch on the coding level to realize algorithms and do experiments on various datasets.

2019.04-06 ***3D Object Reconstrution Based on Structured Light***

- Write original code to implement image rotation, camera calibration and triangulation;
- Write original code to implement threshold distances, pruning and hole filling for mesh-clean and smoothing;
- Use MeshLab for 3D alignment and Poisson reconstruction;
- Use Blender to show the final result.

2019.04-06 ***The Parallel Implementation on GA for Solving TSP***

- Implement the Genetic Algorithm on the Traveling Salesman Problem;
- Use the multiprocessing library of python to parallelize the initial population and the evaluation parts;
- Parallelize the greedy algorithm and add non-migration and migration methods on previous work.

2019.02-04 ***Design and Implementation of Search Engine Based on Inverted Index and Merging***

- Use the XML tree to crawl the URL of the UCI ICS School homepage, and identify the URL with the most external links;
- Search the crawled webpage using Beautifulsoup to get the content of the body part of the webpage, extract keywords using NLTK tokenizer, and use TF-IDF technology to inverted-index the text;
- Design a GUI interface to facilitate the user to complete the search.

2019.01-03 ***Artificial Intelligence Course Project: Othello Game***

- Write Python code with object-oriented thinking, split the whole program into four files, which are responsible for board, player, AI and game classes, making the whole structure clear, portable and easy to maintain;
- Establish an imaginary enemy, use the min-max and the alpha-beta pruning algorithm, set the weight of the board position to establish an evaluation function, and let the AI train through self-competition to continuously optimize the chess tricks;
- Let two AI battle and test the performance of algorithms.

TECHNICAL SKILLS

Programming Language: Python, java, C++

Tools: Pytorch, Numpy, Pycharm, Jupyter, Linux, Matlab, Octave, Eclipse

CERTIFICATE

TOFEL: 104

GRE: 325

2017 second-class school-level scholarship & 2016 third-class school-level scholarship

ABOUT ME

I have a strong interest in Computer Vision. Although just stepped into the Computer field, I have been participating in different projects and high-quality research, which can prove my potential in this field. In my daily life, I have got the Piano Professional Certificate Level 10 and the third place in school singer contest. I was a department leader of my undergraduate student union. I believe these experience, great enthusiasm and self-motivation will be my driving force in this field.