Shaozhe Hao

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EDUCATION

The University of Hong Kong — Hong Kong SAR, CN
Ph.D. Student in Computer Science — *Sep. 2021 - Now*
- Supervisor: Dr. Kenneth K.Y. Wong

Huazhong University of Science and Technology — Wuhan, Hubei, CN
B.Eng. in Automation — *Sep. 2017 - Jun. 2021*
- GPA: 92.7/100 (3.97/4.0), Rank: 2/189

RESEARCH

Occluded Face Recognition — Remote
HKU CS Summer Internship Research Assistant | Mentor: Dr. Kenneth Wong — *Jul. 2020 - Aug. 2020*
- Proposed to train a multi-task network for face de-occlusion and recognition at the same time, which means we can accomplish feature encoding, face de-occlusion, and face classification in a single framework.
- Used a trainable rectification matrix, at both space dimension and channel dimension, and new loss functions to restore the original faces from the occluded faces.

EEG-Based Individual Identification and Verification — Wuhan, Hubei, CN
Research Assistant | Mentor: Prof. Dongrui Wu — *Mar. 2019 - Mar. 2020*
- Used digital filter, Common Spatial Pattern, k-NN, Neural Network, Signal2Image trying to establish a user authentication and identification method based on electroencephalogram (EEG) data.
- Concatenated different motor imagery EEG trials making a more separable feature to enhance the performance.
- For single time domain, the accuracy is between $94\% \sim 98\%$.

WORK & PROJECTS

Bytedance Tech-Training Camp — Remote
Front End Development — *Jun. 2020 - Jul. 2020*
- Bytedance Werewolf: A mobile terminal web development project based on Vue framework, which achieved simple, unified and beautiful UI design using HTML and CSS and efficient logical interaction using JavaScript, with an established back end service.
- Our team ranked 1st among 6 teams.

Vizum Internship — Beijing, CN
Development Intern — *Jan. 2020 - Feb. 2020*
- Car License Plate Precise Detection: developed a system in Python dependently, which can detect car license plates robustly, regardless of angle, lighting, cover or other noises and draw the line along the contour of plates.
- Used YOLOv3 for global detection and traditional image processing methods, such as region Expand, for sharp contour extraction.

Camera Detection System — Wuhan, Hubei, CN
Curriculum Design — *Nov. 2019 - Dec. 2019*
- An MFC executable file for camera detection in C++, using with two lighting modes, infrared light and natural light.
- Used threshold segmentation, corner detection, region expend and candidate points selection to mark the location of cameras in the surroundings.

HONORS & AWARDS

- Postgraduate Scholarships, HKU — *2021-2025*
- Outstanding Graduate, HUST — *2021*
- UCLA Cross-disciplinary Scholars in Science and Technology Scholarship — *2020*
- National Scholarship of China (**2%**) — *2018, 2019*

SKILLS

Languages C/C++, Python, JavaScript, Matlab
Tools PyTorch, OpenCV, LaTeX