Huijing Zhan

Curriculum Vitae

Rapid-Rich Object Search Lab,
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Application For Computer Vision Related Job

Education

2012–Present **Ph.D Candidate. in School of Electrical and Electronic Engineering**, *Nanyang Technological University*, Singapore, *GPA:4.67/5*.
Supervisor: Alex C. Kot (IEEE Fellow, Rose Director)

2008–2012 **B.S. in Department of Electronics and Information Engineering**, *Huazhong University of Science and Technology*, Wuhan, China, *GPA:86.4/100*.
Enrolled in Advanced Class (Top students selected from 6000 students from 5 departments)

2013.06–2013.08 **Exchange Student. in School of Electrical and Electronic Engineering**, *Tokyo Institute of Technology*, Japan.

Publications

Jounals **Huijing Zhan**, Boxin Shi, and Alex C Kot. Cross-domain shoe retrieval with a semantic hierarchy of attribute classification network. Accepted by IEEE Transactions on Image Processing (TIP).

Huijing Zhan, Boxin Shi, and Alex C Kot. DeepShoe: A Multi-Task View-Invariant CNN for Street-to-Shop Shoe Retrieval. Submitted to IEEE Transactions on Image Processing (TIP).

Conferences **Huijing Zhan**, Boxin Shi, and Alex C. Kot. Street-to-shop shoe retrieval. In British Machine Vision Conference (BMVC), 2017.

Huijing Zhan, Boxin Shi, and Alex C. Kot. Fashion analysis with a subordinate attribute classification network. In IEEE Conference on Multimedia and Expo (ICME), 2017.

Huijing Zhan, Boxin Shi, and Alex C. Kot. Cross-domain shoe retrieval using a three-level deep feature representation. In IEEE International Symposium on Circuits and Systems (ISCAS), 2017.

Huijing Zhan, Boxin Shi, and Alex C. Kot. Street-to-shop shoe retrieval with multi-scale viewpoint invariant triplet network. In IEEE Conference on Image Processing (ICIP), 2017.

Huijing Zhan, Sheng Li, and Alex C Kot. Tagging the shoe images by semantic attributes. In IEEE International Conference on Digital Signal Processing (DSP), 2015.

Experience

Research Experiences

2017.03–present **Project Officer**, Rapid-Rich Object Search (ROSE) Lab, Nanyang Technological University.

- Proposed a street-to-shop shoe retrieval system with higher performance and enhanced capability in addressing the case of large viewpoint variation, fine-grained details;
- Implemented the recent algorithm into a live demo;

2016.11–2017.02 **Student Helper**, Rapid-Rich Object Search (ROSE) Lab, Nanyang Technological University.

- Aiming at utilizing 3D CAD models to facilitate the task of cross-domain shoe retrieval;
- Aiming at generating synthetic images employing 3D rendering to address the retrieval of shoes with large viewpoint variation;

2016.6–2016.11 **Student Helper**, Rapid-Rich Object Search (ROSE) Lab, Nanyang Technological University.

- Proposed a cross-domain shoe retrieval system with the multi-level deep feature representation specifically designed for shoes;
- Established a large-scale shoe dataset with daily shoe photos and clean shoe images;
- Developed an API written in Matlab;

2013.6–2013.9 **Exchange Student**, TAKISHIMAYA Lab, Tokyo Institute of Technology.

- Designed a simple but effective algorithm to improve the measurement precision in marker-less tracking from a single image;
- Developed a simple but effective edge detection algorithm of 3D object. It can be used in the augmented reality to overlay a virtual 3D object on the particular scene;

2011.7–2011.8 **Research Assistant**, National Anti-Counterfeit Engineering Research Center, Huazhong University of Science and Technology.

- Implemented an efficient algorithm for nuclei segmentation;

Contests Experience

2014.12 **WeMage Challenge 2014**.

- Participated in developing an android app that is capable of detecting and recognizing the university logo based on the image captured by the mobile phone;
- Developed a demo demonstrating the key functions;

2011.6 **TI CUP COMPETITION**.

- Designed the circuit graph of a wave-generator and implemented an effective wave generation algorithm in C;

2010.8 **HUAZHONG MATHEMATICAL CONTEST IN MODELING**.

- Designed an efficient algorithm to address the Shortest Path problem using Matlab and Lingo programing;

Honors and Awards

Sep. 2011 **NATIONAL SCHOLARSHIP** (Top scholarship awarded to 1% undergraduate students because of their distinguished academic performance.)

Sep. 2011 **Merit Student of Huazhong University of Science and Technology** (Honour awarded to top 1% undergraduate students for their outstanding records in moral, academic work and physical condition.)

Computer skills

Familiar CAFFE, C/C++, Linux, Autodesk 3ds Max

Proficient Matlab, TORCH, LaTeX, PYTHON, MatConvNet

Teaching Experience

2015 Teaching Assistant, Signals and Systems, NTU

2015 Teaching Assistant, Digital Signal Processing and Applications, NTU

2014 Teaching Assistant, Embedded Systems using NI myDAQ and LabView, NTU

Communication Skills

Jul. 2017 Oral and Demo Presentation to 23 Executives from Alibaba

Jul. 2017 Oral Presentation at the ICME Conference

Jun. 2017 Oral Presentation at the ISCAS Conference

Jun. 2015 Oral Presentation at the DSP Conference

Aug. 2013 Poster presentation in the MISW 2013 workshop, Japan