Resume

Mr. Tianxiao Zhang

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EDUCATIONAL BACKGROUND

University of Kansas (KU) **Lawrence, Kansas, USA**
Ph.D.-Electrical Engineering (Computer Vision and Deep Learning) **08/2019-present**
- GPA: 4.0/4.0

University of Southern California (USC) **Los Angeles, USA**
M.S.-Electrical Engineering (Signal and Image Processing & Communication) **01/2016-12/2017**
- GPA: 3.82/4.0

Hebei University (HBU) **Baoding, China**
B.E.-Electrical Engineering (Signal and Image Processing & Communication) **09/2011-06/2015**
- Overall GPA: 86.7/100; Major GPA: 89.7/100

TEACHING EXPERIENCE

EECS 168 **Lawrence, Kansas, USA**
Instructor: Dr. John Gibbons **08/2020—12/2020**
- Teaching the lab sessions for EECS 168 students.
- Grading the assignments and exams of EECS 168 students.

RESEARCH EXPERIENCE

Computer Vision Lab **Lawrence, Kansas, USA**
Instructor: Dr. Guanghui Wang **08/2019—present**
- Doing research mainly on object detection, segmentation, deep learning, machine learning.

Media Communication Lab **Los Angeles, USA**
Instructor: Dr. C.-C. Jay Kuo **08/2017—04/2018**
- Joining the Media Communication Lab guided by professor C.-C. Jay Kuo
- Doing several projects relating to **image recognition**
- Helping other group to **test** and **improve** their project related to Natural Language Processing (RNN)

Using and Improving Saak Transform in recognizing the images **Los Angeles, USA**
Instructor: Dr. C.-C. Jay Kuo **12/2017—04/2018**
Link: *https://github.com/zhtianxiao/Saak-Transform.git*
- Using **Python** realizes Saak transform recognizing the images
- Using different methods to improve the accuracy of Saak transform in recognizing the images
- Comparing the performance of Saak Transform and **CNN** in recognizing the images
- In this project, I utilized various **python** modules such as **pytorch**, **sk-learn**, **scipy**, **numpy**, **PCA**, **SVM**, etc.

Utilizing C/C++ to do several projects related to multimedia **Los Angeles, USA**
Instructor: Dr. C.-C. Jay Kuo **08/2017—12/2017**
Link: *https://github.com/zhtianxiao/Mutimedia-Project.git*
- Using **C/C++** to realize **entropy coding** which includes Shannon-Fano Coding, Huffman Coding, Adaptive Huffman Coding, Run-Length-Coding, Burrows-Wheeler-Transform, etc.
- Using **C/C++** to construct **QM Coder** (Arithmetic Coding) with methods containing bit-plane coding, Huffman coding, pre-processing images and run-length coding
- Utilizing **C/C++** to quantize images. The **Quantization** methods contain Lloyd Max Scalar Quantizer and Vector Quantizer
- Utilizing **C/C++** to compress **JPEG** images. DCT was used to quantize the images and post-processing was utilized to encode and decode the images
- Utilizing **ffmpeg** to deal with some video related problems

HONORS & AWARDS

- First-Class Prize Scholarship , HBU 2013-2014
- Merit Student, HBU 2013-2014
- Third-Class Prize for 15th Electronic Design Contest , HBU 12/2013
- Second-Class Prize for 15th Electronic Design Contest, HBU 12/2013
- First Changxue Cup Electronic Design, HBU 11/2013
- Outstanding Performance (Piano), HBU 11/2013

- Third-Class Prize Scholarship, HBU 11/2013
- Excellent Award in Student Category, Sixth Hebei Music Golden Bell Award, Baoding Division 04/2013
- National Encouragement Scholarship 2012-2013
- First- Class Prize Scholarship, HBU 2011-2012
- Merit Student, HBU 12/2012
- Third-Class Prize in Young Category, First Yamaha National Piano Contest, Baoding Division 12/2012

SKILLS

Interests: Computer Vision, Deep Learning, Machine Learning, Biomedical Engineering, Signal and Image Processing.
Skills: Computer programming skills: C, C++, MATLAB, Python, R(a little).
Hobbies: Playing the piano, doing all kinds of ball games, traveling and hiking.