Yingpeng Ma

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GPA: 2.3(in Modifizierten Bayerischen Formel), IELTS:7.0, GRE:319+3.0
Programming Skills: Python, C/C++, JAVA, MATLAB
Software Platforms: Spyder3, VS, Pycharm, Tensorflow

GapYear

My Plan — Chengdu, China
During the Gap Year and after — *Sep. 2019 - Present*
- After the graduate, I was doing some part jobs as an independent programmer. I've completed several tasks including ML and communication systems. I'm currently looking for an intern job as a communication engineer for Mar. to Aug. At the same time, I'm preparing for a Master's Degree Program studying for Winter Semester. I'd like to take part in some Communication Engineering and Signal Processing research in further, which means I might pursue a higher degree as a Doctoral after Master's studying.

Education

University of Electronic Science and Technology of China (UESTC) — Chengdu, China
Bachelor of Engineering, Communication Engineering — *Sep. 2015 - Jul. 2019*

The High School Attached to Northwest Normal University (NWNU High School) — Lanzhou, China
Secondary High School — *Sep. 2012 - Jul. 2015*

Lanzhou No.7 Middle School — Lanzhou, China
Junior High School — *Sep. 2009 - Jul. 2012*

Tuanjie New Village Elementary School — Lanzhou, China
Elementary School — *Sep. 2003 - Jul. 2009*

Research Experience & Intership

Data Prediction Using CEEMD and LSSVM
Practice Project: github.com/ingingX/FullVision-CEEMD-LSSVM — *Oct. 2019*
- **Python - Pandas** Used Python lib, Pandas, converting HTML data to EXCEL sheets for further processing.
- **CEEMD & LSSVM** Applied CEEMD (Complementary Ensemble Empirical Mode Decomposition) decomposite original signal into multiple IMF components, then predicted longer sequence adopting LSSVM (Least Squares Support Vector Machine) method.

Simulation of MSK System with Doppler Channel and Performance Improvement
Practice Project: github.com/ingingX/MSK-Doppler — *Sep. 2019*
- **Simulink** Built MSK (Minimum Shift Keying) modulation and demodulation systems with adjustable doppler offset as noise, then added in channel estimating system improving SNR of received signals.

Research of Transform Coding Based on Image Features — UESTC, Chengdu
Undergraduate Thesis, Supervised by Prof. Shuyuan Zhu — *Dec. 2018 - Jun. 2019*
- **Task** Designed a new transform coding method substituting DCT in the JPEG system.
- **MATLAB & OpenCV** Utilizing MATLAB, a fast and RAM-friendly JPEG en-decoding system was built. Improved Discrete Cosine Transform algorithm by merging image features into encoding processing. The whole project was partially built by MATLAB and partially by OpenCV.

Image Saliency Detection with Bit-map and Bit-place Slicing — UESTC, Chengdu
Team Leader, Supervised by Prof. Bing Zeng, IEEE Fellow — *Sep. 2017 - Jun. 2019*
- **Method** Proposed innovative approaches based on bitmap and bit-plane slicing to detect the salient regions of static digital images. Without DL or ML, it resulted in excellent when comparing Runtime, Memory Usage and MAE curves with other literature.
- **Award & Achievement** Part of the project got a grade of Pass (92/100) for the *National College Students' Innovation and Entrepreneurship Training Program*

Image Transmission through a 3.5 mm Audio Cable — UESTC, Chengdu
Team Leader, Supervised by Prof. Xiaofeng Li — *Nov. 2017 - Dec. 2017*
- **Task** Established a system transferring pictures between two computers (PCs) through a 3.5 mm audio cable (AUX).
- **MATLAB & Simulink** Designed mod & demod system using DQPSK and coded the whole system on MATLAB and Simulink platforms.

Datang Telecom Technology — Chengdu, China
Intership — *Jul. 2017 - Sep. 2017*
- **Engineer Assistant** Initialized the base station settings and designed and simulated the switching algorithm (Dijkstra) to reduce network congestion.

Study Abroad, Volunteer & Awards

- **Exchange study in the National University of Singapore, 2016**
  Completed courses in Engineering Management, won the Second Place with research on the business model of Uber.
- **Contestant Assistant/Volunteer, China College Students Entrepreneurship Competition, 2016**
- **Outstanding Individual in Social Practices Scholarship of UESTC, 2016**
- **Third Place, Mathematical Competition of UESTC, 2016**