Yingpeng Ma

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** I'm in the gap year, and planning my intern job.*

Education

- **University of Electronic Science and Technology of China (UESTC)** — Chengdu, China
  Bachelor of Engineering, Communication Engineering — *Sep. 2015 - Jul. 2019*
  - *GPA: 3.41/4.00 IELTS:7.0 GRE:319+3.0*
  - *Relevant Module: Calculus, Linear Algebra, Probability and Mathematical Statistics, Software Technique, Digital Circuits, Signals and Systems, Mobile Communication Systems, Principle of Communications, Information Theory*
- **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**

Programming Skills

- **Languages** C++, Python, Java
- **Software Platforms** MATLAB, Spyder3, VS