Xiao Xia

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EDUCATION

Master of Engineering in Electronics and Communication Engineering Degree expected 2018
Beihang University, Beijing, China
GPA: 89.6/100

Bachelor of Engineering in Electronic and Information Engineering of Honors Program 2015
China Agricultural University, Beijing, China
GPA: 85.1/100, 3.49/4.0

- **TOEFL: 106** (R29 + L28 + S24 + W25) 09/2017
- **GRE: 326** (V159 + Q167) + AW3.5 04/2017

RESEARCH EXPERIENCE

Application of Deep Learning Theory in SAR Target Recognition 10/2016 - Present
Graduation Project, Beihang University

- Proposed a model combining multi-scale convolutional networks and SVM for SAR target recognition. Achieved excellent experimental results with an average recognition accuracy of 99.42% on the MSTAR database.
- Utilized MATLAB, Python and Keras.

A Fast Algorithm Based on Two-Stage CFAR for Ship Detection in SAR Images 03/2016 - 07/2016
Research Assistant, Beihang University

- Proposed a modified detection algorithm based on two-stage CFAR. Used moment estimation method to estimate parameters of G^0 distribution of sea clutter. Concatenated global CFAR and local CFAR. The second stage detect only the regions of interest extracted from the first stage, reducing the computing amount.
- Developed MATLAB program to implement the algorithm.

Space Target ISAR Imaging Simulation and Target Characteristics Analysis 10/2014 - 06/2015
Graduation Project, China Agricultural University & Beihang University

- Designed an ISAR imaging simulation system based on Range-Doppler algorithm. Analyzed characteristics of moving target's ISAR images through Joint Time-Frequency Analysis.
- Designed demonstration program with MATLAB GUI.

Portable Beef Quality Testing System Based on DSP 12/2013 - 11/2014
National College Students' Science and Technology Innovation Project, China Agricultural University

- Compared many methods of beef-marbling detection. Based on Otsu algorithm, used CCD vision sensor and TMS320DM642 to develop an evaluation system.
- Segmented the rib-eye beef images and extracted beef marbling to help the classification become 23% more accurate than manually classification.

Mini Smart Greenhouse Based on Microcontroller 04/2013 - 05/2014
Science and Technology Innovation Project of Honors Program, China Agricultural University

- Constructed a mini greenhouse model. Used STC89C516 to detect and control environment factors including temperature, humidity and light intensity.
- Built a WinForm application and developed a website in order to monitor and control the greenhouse through computer and the Internet respectively. Utilized C#, HTML, CSS, JavaScript and PHP.

PUBLICATION

- **Xiao XIA**, Yunneng YUAN, *Combination of Multi-Scale Convolutional Networks and SVM for SAR ATR*, 2018 2nd IEEE Advanced Information Management, Communicates, Electronic and Automation Control Conference. (Accepted, EI index)

TEACHING EXPERIENCE

Undergraduate Course: *Principle of Automatic Control* 03/2016 – 07/2016

Teaching Assistant, Beihang University

- Led course discussions and assisted laboratory experiments.
- Summarized and answered students' questions.
- Corrected students' assignments and evaluated students' performances.

AWARDS & CERTIFICATIONS

The Second-Class Scholarship for Study, Beihang University 2015 - 2017

Academic Progress Scholarship, China Agricultural University 2014

The Second-Class Scholarship for Study, China Agricultural University 2014

Honorable Mention, 2014 Mathematical Contest in Modeling 2014

SKILLS

- **Platforms:** Windows Operating Systems, Ubuntu Linux.
- **Languages:** MATLAB, Python, Keras, C++, C#, HTML, CSS, JavaScript, PHP.
- **Applications:** Microsoft Office, PyCharm, Visual Studio.