

# Xiao Xia

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## EDUCATION

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

**Bachelor of Engineering**, Electronic 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

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**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. The first stage used global CFAR to find all possible targets, while the second stage used local CFAR to detect only the regions of interest, reducing amount of computation.
- 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**

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- **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**

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**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**

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**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**

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