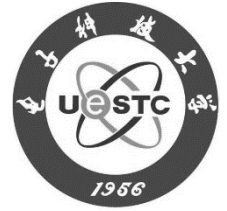# PENGYU YAN

School of Opto-electronic Information.
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EDUCATION

University of Electronic Science and Technology of China, UESTC   *Sept 2014- Jul 2018*

Major: Electronic Science and Technology

GPA: 3.65/4.0

Core-course GPA: 4.0/4.0

TOEFL: 99 (R27 L24 S23 W25)

GRE: V149+Q170+3.0

Major courses: Calculus (82/100); Linear Algebra and Space Analytic (80/100); Signal and Systems (85/100); Advanced Programming Language (86/100); Optoelectronic Image Processing (85/100); Thin Film Technology (91/100); Sensing Technology (97/100); Opto-electronic materials and Devices (90/100); Application and Design of Digital Logic (85/100); Physical Optics (89/100)

Rutgers University, New Jersey, summer Program   *July 2015-Aug 2015*

3D Printing, Package Engineering

Language program, PALS

RESEARCH

Research Projects (Prof. Ping Zhang)   *July 2016-Present*
- Graduation Thesis
  - 3D Video Saliency based on Generative Adversarial Networks (GANs)
- Saliency Detection in 3D video based on Graphical Model
  - Upgraded SLIC algorithm and designed a Multi-Scale architecture
  - Calculated the saliency score based on global contrast
  - Exploited transition probability in graphical model to refine the saliency maps
- Infrared Weak Target Detection based on Deep Learning
  - Used Convolutional Neural Network to process the feature of weak target
  - A patent has been accepted in CN Patent office.

Mathematical Competition (selected) (Prof. Mingqi Li)   *Oct 2015-Jun 2016*
- Optimization Model of Design for Mooring Chain System
  - Analyzed the force situation of Chain and build the equilibrium force equations
  - Used Simulated Annealing algorithm and multi-object optimization to design the chain system
  - Won the 1st prize in CUMCM (national) and published a journal article
- Devices function examination based on Multi-target optimization
  - Definited the quality degree of devices and pre-process the large data of them
  - Ranked each kinds of devices based on Grey Relational Analysis
  - Won the 2nd prize in UESTC MCM

Package Engineering in Rutgers (Prof. Euihark Lee)   *July 2015-Aug 2015*
- 3D Printing
  - Built 3D models by Solidworks
  - Printed a mini F22 jet model by 3D printer

PUBLICATION & PATENTS

1. P. Zhang*, **P. Yan**, J. Wu. Unsupervised Saliency Detection based on Multi-Scale Segmentation and Refinement. (To be submitted to IEEE Signal Processing Letter).

2. P. Zhang, J. Wang, **P. Yan**, X. Wang, J. Liu. An infrared weak target detection based on CNN. CN Patent office, App. Number: 201710758679.4.

3. P. Zhang, M. Tian, X. Wang, **P. Yan**, J. Wu. Moving Object Detection Based on Infrared and Visible Video Fusion. CN Patent office, App. Number: 201710516316.1.

4. **P. Yan**, C. Fan, F. Sun. Optimization Model of Design for Mooring Chain System. *Tianfu mathematics*, 2017, (23):63-66 (in Chineses).

CONFERENCES

Vision And Learning SEminar 2017 Academic Conference (VALSE)	*Mar 2017*
2016 Chinese Conference on Pattern Recognition, CCPR	*Oct 2016*

AWARDS

- **Scholar**

1st Prize	Contemporary Mathematical Contest in Modeling	*Sept 2016*
2nd Prize	2016 UESTC Mathematical Contest in Modeling	*Jul 2016*
1ST prize	The Third National Spoken English Competition (NSEC)	*Nov 2014*
1st Prize (Top 5%)	"Langchao" Enterprise scholarship (Only granted for two students)	Oct 2017
3rd Prize (Top 15%)	People's Scholarship	*Dec 2015*

- **Extra-Curriculum**

Excellent Leadership	Minister of Public Relations Department in Student Union	Oct 2017
Excellent Organization	None-native Karaoka Game	*Dec 2015*
Excellent Individual	Summer Social Practice, UESTC	*Oct 2015*
Best	Volunteer of Robomaster Competition in 2016	

ACTIVITIES

Freshman Mentor, School of Optoelectronic Information   *Sept 2015- Jul 2016*
- ➢ The class I have mentored ranked 1st in the school
- ➢ Promoted a good academic and friendly environment

Minister of Public Relations Department, School Student Union   *Apr 2015- Jul 2016*
- ➢ Managed a group made up by 15 members
- ➢ Organized the None-native Karaoke game in our campus
- ➢ Win patron of 10,000RMB totally from the company as funding to support activities in school

Representative of the Party Branch in UESTC   *Apr 2015- Jun 2015*
- ➢ Organized three volunteer activities in the rounding community

Class **Monitor**   *Sept 2014- Jul 2015*
- ➢ 1-year duration

SKILLS

Programing: Python, C++, HTML

Software: Ubuntu, LaTeX, Caffe, Matlab

Language: English (fluent), Chinese (native speaker)

Instruments: Bamboo Flute instruments (Amateur Level Ten, highest)