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#### **EDUCATION**

University of Florida

Sept. 2019- June 2021

M.S. in Electrical & Computer Engineering

Gainesville, FL

GPA: 3.79/4.0

Shenyang Institute of EngineeringSept. 2014- July 2018B.E. in Electronic Information EngineeringShenyang, Liaoning

GPA: 3.03/4.0

#### PROJECT EXPERIENCES

#### Brick Pattern Classification System based on ResNet50

Nov. 2020 - Dec. 2020

Group Project | Machine Learning

Gainesville, FL

- Preprocess the data set, and modify the image samples by bilinear interpolation
- Import the model parameters trained by the original author, use transfer learning tech to freeze the model's convolutional layer, add and train the custom fully connected layer to accelerate convergence
- Train the new fully connected layer, and use the divided test set to test. The final recognition accuracy is 97.5%

#### Research on LTE Information Transmission Technology

Oct. 2020 - Dec. 2020

Independent Project | Wireless Communication

Gainesville, FL

- Designed and simulated an information transmission system using OFDM, and analyzed the signal features of each stage
- Explore the signal transmission characteristics in the AWGN channel and Rayleigh fading channel
- Calculate the change of system bit error rate (BER) under different signal-to-noise ratio (SNR) by Monte Carlo method

## Analysis of Face Recognition Tech based on PCA and CNN

Feb. 2020- Apr. 2020

Independent Project | Pattern Recognition

Gainesville, FL

- Preprocess the LFW face set and use SVD function to compute eigenvalue of covariance matrices
- Use Principal Component Analysis (PCA) method to compute eigenfaces and reached 97% recognition accuracy
- Build a 8-layers Convolution Neural Network (CNN) with Tensorflow and reach 94% accuracy

# A New Multi-Channel Environmental Temperature Detection Device based on ARM

May 2017 - Dec. 2017

1st Inventor | Utility Model Patent: CN206696670U

Shenyang, Liaoning

- Design and use Proteus to simulate the control module of the detection device
- Achieve temperature information collection, heating, alarm and other functions with STM32f107 chip
- Expand the device hardware I/O ports to achieve multi-channel detection (up to 160 monitoring points)
- Completed the simulation and welding of the entire circuit with other members

### **Intelligent Granary Control System**

May 2017 - Aug. 2017

Group Project | The Challenge Cup Sci. & Tech Competition: Provincial 3rd Prize

Shenyang, Liaoning

- Implemented a circuit with AT89c51 to realize the control function and DHT11 to collect temperature and humidity information
- Completed the design and simulation of the display, linear stabilized power supply and control circuit of the system, using Multisim
- Design the device enclosure with other members using 3DsMax

### **MISCELLANEOUS**

**Research Interests:** Computer Vision, Image Processing & Analysis, Machine Learning

Skills & Softwares: Python, MATLAB, Java, HTML, CSS, Multisim, 3Ds Max, Microsoft Office, Proteus

Languages : English (TOEFL102, CET-6), Chinese

## **HONOR AWARDS**

Achievement Award Scholarship, University of Florida	2019-2020
Excellent Graduate, Shenyang Institute of Engineering	2018
Social Practice Advanced Individual	2015-2016
Third-Class Scholarship, Shenyang Institute of Engineering	2014-2015
Excellent Student Cadre, Shenyang Institute of Engineering	2014-2015