

Curriculum Vitae

PANG, QI

Zhejiang University
Electronic Information Engineering

Education

Zhejiang University (ZJU)

Sept.2016-present

- **Junior student of Electronic Information Engineering**
- **GPA:** 3.91/4.0, 88.72/100
- **Ranking:** 3/92
- **Related Courses:** Calculus, Linear Algebra, Probability and Mathematical Statistics, Complex Variable Functions & Integral Transformation, Partial Differential Equations, Numerical Method, Fundamentals of Programming, Lectures on C programming, Fundamentals of Data Structure, Object-Oriented Programming, Computer Network & Communication, Principle and Interface Technology of Microprocessors, Signal Analysis and Processing, Circuit and Electronic Technology.

Honors and Awards

Sept.2016-present

- First-Class Scholarship for Outstanding Merits (top 3%) 2016-2017
- First-Class Scholarship for Outstanding Merits (top 3%) 2017-2018
- First Prize, National Mathematics Competition for College Students (highest score) Nov. 2017
- First Prize, Physics Competition for College Students in Zhejiang Province Jan. 2018
- Honorable Mention, Mathematical Contest in Modeling Mar. 2018

Research Experience

Moir éID

Sept.2018-May.2019

Advisor: Prof. Xu, Wenyuan and Prof. Ji, Xiaoyu

- To protect sensitive user information from camera capturing via moir épattern based screen ID.
- Established a mathematical model which measures the response of human eyes to the brightness of the image to make the pattern seems natural.
- Used discretized bipolar non-return-to-zero method to encode, and designed a corresponding decode system which achieved an accuracy higher than 92%.
- Moir épattern is utilized for camera-captured image tracking, which is the first attempt in this field.

iCare

Aug.2018-Sept.2018

Advisor: Prof. Xu, Wenyuan and Prof. Ji Xiaoyu

- Used data from sensors of the mobile phones to identify the age of the user to prevent children from playing mobile phones in absence of their parents.
- Recorded touch behaviors and extracts hand geometry, finger dexterity and hand stability features that capture the age information from the raw data.
- Conducted experiments on a hundred people, and used the features to train a classifier which can achieve more than 95% accuracy for child identification.
- Tried LSTM to improve the accuracy.

Internship in ZJU Robot Vision Lab

Dec.2017-Aug.2018

Advisor: Prof. Zhou, Xiaowei

- Used convolutional neural network to distinguish the hand-writing digit, finally achieved an accuracy more than 98%.
- Used several layers of a well-trained neural network and gram matrix to transform the style of an image to another.
- Used color recognition to locate the robot and in most conditions, and used control science to make sure the robot can catch the ball and shoot it into the goal.
- By analyzing the signals from the robot's sensors and using the knowledge of control science, the robot can get out of the maze.

Competition

National Mathematics Competition for College Students

Nov. 2017

- This contest tested the students' basic ability in mathematics.
- Got the highest score in Zhejiang province.

Physics Competition for College Students in Zhejiang Province

Jan. 2018

- This contest tested the students' basic ability in physics.
- Won the first prize in this competition.

Mathematical Contest in Modeling

Mar. 2018

- A mathematical model was established to simulate the transmission and reception of electromagnetic waves.
- Simulated the reflection of ground, buildings, and sea.

Mathematical Contest in Modeling

Jan. 2019

- Established a mathematical model to give the best route for the escape of the Louvre.
- Different scenarios of tourists and rescuers were simulated.

Technical Skills

- **Programming Language:** Python, C/C++, VHDL, Matlab, Assembly Language.
- **Software:** CADANCE, Wireshark, Jupyter Notebook.
- **Deep Learning & Computer Vision:** Pytorch, Tensorflow, openCV
- **Operating System:** Linux, Windows
- **Others:** Excellent abilities in mathematics, physics and computer science.