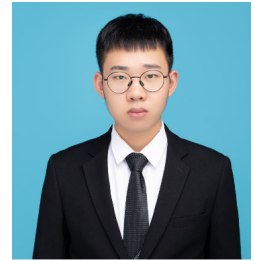# Feng He

TEL：(+86) 18571220871 · Mail：hefengcs@gmail.com
Website：hefengcs.github.io · CET-6:500
GPA: 90.7/100

EDUCATION

Yangtze University，Computer Science	2019.09 - 2023.06
University of Science and Technology of China, Biology	2023.09 - 2026.06

RESEARCH EXPERIENCE

The National University Student Scientific Research Project, Leader**(1 / 500+)**

Patent "A computer cooling device" **(The First Inventor)**

Participated in the writing of the academic monograph "Face Attribute Recognition and Editing in Deep Learning"

Publication:

- Optimization of a Bearing Fault Diagnosis Method Based on Convolutional Neural Network and Wavelet Packet Transform by Simulated Annealing(Accepted, Sensors(SCI), **First author**)
  Use deep learning technology to complete bearing fault diagnosis. The bearing diagnostic signal is processed using wavelet packet transform. Convert a 1D diagnostic signal to a 2D graph for classification using a convolutional neural network. Finally, a simulated annealing algorithm is introduced to adjust the parameters, so that the task of bearing fault diagnosis can be adaptively completed.

- Evaluation of Higher Education System by TOPSIS Based on Entropy Weight Method(Accepted, CAMMIC2022(EI), **First author**)
  Use machine learning algorithms to conduct research on the higher education system.

- Makeup Transfer:A Review(Accepted,IET Computer Vision(CCF-C),**First author**)
  The field of makeup transformation has been systematically sorted, including classic models, data sets, and evaluation methods.

- ACGAN : Age-Compensated Makeup Transfer Based on Homologous Continuity Generative Adversarial Network Model(Accepted, IET Computer Vision(CCF-C),**Second author and corresponding author**)
  In the field of makeup transformation, previous methods lack consideration of age factors, and a new makeup transformation method ACGAN is proposed. ACGAN consists of two network branches. One is the age compensation branch, which is responsible for supplementing the age factor, and the other branch is the makeup transformation branch, which is responsible for makeup transformation, and maintains the consistency of face identity information and background information before and after makeup transformation. ACGAN has increased the consideration of age factors, and achieved good results in appearance attractiveness through a large number of qualitative and quantitative experiments.

- Hyper-sausage coverage function neuron model and learning algorithm((Major Revision，Pattern Recognition(CCF-B)， **First student author**)
  Covering learning and super sausage neurons are proposed, which have stronger generalization ability and better classification effect than traditional pattern recognition.

- An Intensity-Controllable Face Attribute Synthesis Method and A Benchmark Dataset (In peer review,NEURAL NETWORKS(CCF-B),**First student author**)
  The face editing method based on homology continuity can perform stable and controllable editing of face attributes (age, expression, etc.).

Competition Experience and Honor

National Undergraduate Computer Design Competition	National Third Prize
National University Entrepreneurship Comprehensive Simulation Competition	Provincial Second Prize
National Undergraduate Mathematical Modeling Competition	Provincial Third Prize
Merit Student	Yangtze University
Hanko Scholarship	Yangtze University
National Encouragement scholarship	HuBei Province,China

Intern Experience

Institute of Semiconductors, Chinese Academy of Sciences, Rearch Assistant   2022.01-2022.10

Responsible for research in computer vision. Track, read, reproduce the latest papers. Published papers in the field of makeup transformation.

University of Texas at San Antonio, Rearch Assistant   2022.05-2022.10

Responsible for research on image generation. Mainly responsible for reproducing the latest papers, making improvements, and writing academic papers.