WU Zijian

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Male, 23 years old, Beijing
Huazhong University of Science and Technology (HUST) & Paris Saclay University

Welcome to personal homepage and blog:
wuzijian.cf
GitHub

Individual ability

- Operating system:

Windows, Linux

- Adobe:

Photoshop
Lightroom

- Programming language:
- C/C++ (OpenCV, Cuda, DirectX, OpenMP…)
- Matlab
- Java (Android)
- C# (.NET)

language skills

- French (TCF B1、TFI B2)
- English (CET-6、TOEIC 820)
- Chinese (Mandarin)

Personal profile

I love to communicate with others, I am good at finding problems independently, and I can solve problems from different directions; I have maintained the top three in my grade during my master's degree; I love Image Processing and I hope my code will benefit more and more users; I like everything new, I love programming, sharing, and especially my code used by others.

✧ Education background

2011 - 2014 · Beijing No.12 Middle School, Science

2014 - 2017 · Huazhong University of Science and Technology, Optoelectronic Information Science and Technology, Bachelor

2017 – 2020 · University of Paris-Saclay, Polytech, Electronics, Energy and Systems, Engineer

2019 - 2020 · University of Paris-Saclay, Master in Embedded Systems and Information Processing (dual degree)

✧ Experience

2018

· Internship: Beijing Community Radius Information Technology Co., Ltd. (java backend development, familiar with reading and writing MySQL database, writing SpringBoot style port, 1 month)

2019

· Internship: Paris Saclay University, Satie Laboratory, CNRS of France, processing laser vibration measurement signals through probability and statistical methods (Independently design an algorithm to implement adaptive filters, verifying the elliptical oscillation of surface waves, 3 months)

· Project: University of Paris Sud (11), Pololu Robot Football Battle (based on C ++, using OpenCV to process web camera data, using ZigBee networking, Windows platform application as control center, Mbed as robot control unit, realizing "Chasing each other" and "passing" operations. As the project leader, I am mainly responsible for detecting the position of the robot and the ball based on the Windows platform through OpenCV, 6 months)

· Project: University of Paris Sud (11), "Space Invader" game (C ++, co-design, complete development of space invader game, 3 months)

· Project: University of Paris Sud (11), Gesture detection (Detect gestures in pictures using traditional image processing methods, including various filters, open/close operations, erosion and dilation, reconstruction…)

2020

· Project: Paris Sud (11th) University, fragmented image matching (using OpenCV's FAST and BRISK algorithms to find key points, and broken image fragments to form a complete picture. This algorithm is mainly used for cultural relic restoration. I am responsible for the image Matching part, combining FAST and BRISK algorithms, and using the key point distance relationship to find the position of the fragment in the whole)

· Hobbies: Repair and coloring of old photos (using GAN algorithm, using Tesla T4 graphics card provided by colab, using a variety of different tools to fit blurred faces, eliminating photo creases, and coloring black and white photos)

· Project: University of Paris Sacré, using MATLAB and C ++ (OpenCV):

- intelligently cutting images using seam carving algorithm,
- detecting moving objects using Optic Flow,
- detecting motion with background subtraction algorithm,
- Trajectory tracking based on MST and NCC, etc.

In addition, I have done other projects on android development, human-computer interaction, FPGA development and so on. For more details, please see the online resume. All projects have been open sourced on my GitHub. Welcome to check it out.