Cun Wei

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Education:

2014/09-2017/07 Soochow University | School of Physical Science and Technology | Physics | Master

2010/09-2014/07 Soochow University | School of Physical Science and Technology | Physics | Bachelor

Patent:

(1) **Cun Wei**、gaofeng wu、fei wang、yangjian cai A new system to generate hollow gaussian beam, Utility model patent, Patent no.: ZL 2013 2 0464348.7

(2) **Cun Wei**、fei wang、chunhao liang、yanjian cai A new method to generate Full poincare beams, National invention patent (ongoing).

(3) **Cun Wei**、fei wang、chunhao liang、yanjian cai A new system to measure Full poincare beams' topological charge number,Utility model patent (ongoing)

Paper:

(1) **Cun Wei**, Dan Wu, Chunhao Liang, Fei Wang, Y. Cai, Experimental verification of significant reduction of turbulence- induced scintillation in a full Poincaré beam, *Optics Express*, Vol.23,No.19(2015)

(2) **Cun Wei,** X. Lu, G. Wu, F. Wang, and Y. Cai, A new method for generating a hollow Gaussian beam, *Appl. Phys. B*, 115, 55-60 (2014).

(3) Yan Cui, **Cun Wei**, Yongtao Zhang, Fei Wang, Y. Cai, Effect of the atmospheric turbulence on a special correlated radially polarized beam on propagation, *Optics Communications*, 354,353-361(2015).

(4) X. Lu, **Cun Wei,** L. Liu, G. Wu, F. Wang, and Y. Cai, Experimental study of the fractional Fourier transform for a hollow Gaussian beam, *Optics and laser Technology*, 56, 92-98, (2014).

Experience:

2015/06 ~ 2017/05 Crealights Optical Communication Company | **Software Engineer**

- Develop Automated Test Software.
- Develop Production Line Database.
- Write Optical Device Datasheet.

2017/5 ~ now Realsil Company | **System Designer Engineer**

- TV IC controller software：
  Based on Qt platform, 32bit Register read-write software.
- Algorithm Develop：

1) AI application algorithm: develop the algorithm of independent color protection for face and skin based on data of AI chip.
2) ICM algorithm: independent color management algorithm maintenance and optimization.
3) MEMC motion compensation algorithm: simulate and optimize algo according to the c-model, and improve algo in the next generation IC.

- Firmware：

  Write MEMC and ICM related firmware, burn it into IC and test relevant firmware performance, modify firmware code according to TV performance and customer demand, and provide customers with corresponding firmware.

- Support South Korea LG company：

  On a long-term business trip to LG company in South Korea, responsible for on-site debugging of performance of the new algorithm, as well as fix the issue in the use of host computer software.

Personal:

Good at python and C++, I have independently developed the following:

- **Python related projects:**

  1) AI application: opencv based facial detection & recognition software, Tensor Flow based handwritten numeral recognition software.

  2) Crawler: based on selenium architecture, crawl web site data that dynamically loads web pages asynchronously (taobao website).

  3) Software preparation (based on Pyqt): serial communication upper computer software, automatic test software, data graphics processing software.

- **C++ related projects:**

  1) Software: serial communication class upper computer software preparation.

  2) Algorithm: write c-model corresponding to image processing algorithm, and conduct simulation and maintenance.

  3) Underlying development: write TV IC firmware for dynamic control of TV pictures.

- **Understand IC development cycle and process:**

  Familiar with the basic process of IC algorithm development, verification, improvement and test.

Skill:

- Proficient in C\C++ and Python, with 4 years of development experience in serial communication and USB communication.
- Familiar with Linux basic instructions, with Linux development experience.
- Familiar with firmware of 51 kinds of microcontroller, independently developed reading and writing software of 32bit Register.
- Good at advanced mathematics, advanced physics, optics and related basic knowledge, with good mathematical foundation, good at formula derivation and numerical simulation（Mathematic、MATLAB、Origin）