

# Fu-Chen Chen

+886-955-937-817  
squallinck@gmail.com

Linkedin : <http://www.linkedin.com/in/fuchenchen>  
Website : <http://fcchen.cc>

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## SUMMARY

3 years work experience in computer vision, 2 of 3 years in machine learning algorithm.  
2 years of research experience in video processing & analysis.  
Strong programming skills in C/C++, Verilog

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## PROFESSIONAL SKILLS

### Languages

Proficient in: C/C++, Verilog  
Familiar with: C#, MATLAB, Python  
Ever used: Java, HTML, JavaScript , MySQL

### Library

OpenCV, OpenMP

### Specialty

- Computer vision
- Machine learning
- Video processing
- True motion estimation
- Codec

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## EXPERIENCE

### Senior Software Engineer - Algorithm Developer

2010/12 - present

*Pixart Imaging Inc., Hsinchu, Taiwan*

#### - Machine learning

Developed human sensing algorithms and chips including face detection, face recognition, expression recognition and face tracking accomplished by support vector machine (SVM), multi-class boosting, image feature extraction, image compression.

#### - Capacitor touch panel

Developed algorithms and chips for capacitor touch panel including digital AM signal processing, finger extraction, finger separation and finger tracking.

#### - 2.4G modem

Developed the modem part of RF chip and signal modeling including analog signal synthesis, digital FM signal processing, packet detection, frequency and timing offset recovery.

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## EDUCATION

### National Taiwan University, Taipei, Taiwan

2008/9 - 2010/11

Master of Science in Networking and Multimedia

Overall GPA: 4.0/4.0 (93.04/100.00) Rank : 2/43

### National Taiwan University, Taipei, Taiwan

2004/9 - 2008/6

B.S Degree in Electrical Engineering

Computer science subjects GPA: 4.00/4.00 (90.55/100.00)

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## PATENT

### Home appliance control device, First author

Issued April 9, 2013, US8417385 B2

Issued March 20, 2013, CN102981459 A

### Capacitive touch device, First author

Filed March, 2013, United States

Filed March, 2013, TW102107772

Filed March, 2013, CN201310085351.2