



Shawn Sun

孫欽鉉

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## CONTACT



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## LANGUAGE



**Mandarin**

Native Speaker



**English**

Advanced (TOEIC 825)



**Japanese**

Intermediate (JLPT N2)

## WORK EXPERIENCE

Job Title: Artificial Intelligence Algorithm Summer Intern

Duration: 2022/7/4~2022/8/31

Company: AIROHA Technology

## EDUCATION

Academic Degree: Master

Duration: 2021/8/1~Now

University: National Taiwan University

- Major: Biomedical Electronic and Bioinformatic
- GPA: 4.15/4.30 [\[Transcript\]](#)
- Lab: Biomedical Optical Spectroscopy and Imaging Lab

Academic Degree: Bachelor

Duration: 2017/9/1~2021/6/30

University: National Tsing Hua University

- Major: Biomedical Engineering and Environmental Sciences, NTHU
- GPA: 3.91/4.30 [\[Transcript\]](#)
- Lab: Cellular Physics Lab

## SKILLS

### Domain Knowledge

- Deep Learning、Computer Vision、Photon Simulation
- Digital Signal Processing、Biomedical Electronic、Bioinformatic

### Programming Language

- C/C++, CUDA, Python, MATLAB, LabView

## AWARDS

- 2022 Certificate of Full Attendance of Artificial Intelligent Accelerators Short Course [\[Certificate Link\]](#)
- 2021 1<sup>st</sup> Place of Deep Learning for Computer Vision Thematic Competition
- 2020 Advance Price of Nuclear Science of College of National Tsing Hua University Poster Competition. [\[Poster Link\]](#)

## FORTHCOMING PUBLICATIONS: CONFERENCE PAPER

- Hsin-Yuan Hsieh, **Chin-Hsuan Sun**, Yi-Siang Syu, Yin-Fu Chen, Hao-Wei Lee, Kuang Yang, Kung-Bin Sung.  
Non-invasive quantification of changes in blood oxygen saturation of the internal jugular vein: theoretical evaluation and in-vivo demonstration. 2023 SPIE Photonic West at San Francisco.
- **Chin-Hsuan Sun**, Kung-Bin Sung. Perturbation Monte Carlo Applicability for Human Neck Model. BISC 2022 Biomedical Imaging and Sensing Conference.

## PROJECT DEVELOPEMENT

- Using Monte Carlo based algorithm to detect blood oxygen saturation change of internal jugular vein in vivo. [\[GITHUB Link\]](#)
  - Building human neck numerical model
  - ANN acceleration of simulation
  - Iterative optimal method to solve blood oxygen saturation change

- Using deep learning neuron network to detect human skull fracture region from CT images. [\[GITHUB Link\]](#)
    - Problem provided from the company of Deep01
  - National Science and Technology Council (NSTC) fellowship for excellent students based on my written research proposal.
    - Building 3D-based system in vitro to explore the effect of gap junction for astrocytoma in hypoxia region.
  - MATLAB write RPG multi-player games [\[GITHUB Link\]](#)
  - Make ECG instrument to detect heart beats [\[Finished Product\]](#)
    - Using Fritzing software to do circuit simulation and use electronic components to build amplifier, rectifier, filter and then welding with power supplier on circuit board
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