Curriculum Vitae of Po-Sheng Cheng

Bechalor of Science in **Bio-Mechatronics Engineering** and Bechalor of Arts in **Economics**, National Taiwan University (NTU).

Publication

TeleSHift: Telexisting TUI for Physical Collaboration & Interaction

In Proceedings of the 2022 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp/ISWC '22 Adjunct), https://doi.org/10.48550/arXiv.2209.08362

- Apr. - Sep. 2022
- This work recieved the **Best Demo at Ubicomp/ISWC 2022**.
- I implemented the mechanical design and power supply circuit of the prototype. I also laid out the system architecture of the presented prototype in this work with ESP32 microcontroller, potentiometers, DC motors, etc.
- Additionally, my design for manufacturing improvements helped reducing assembling time of the prototype to only 1/5.

Experiences

Electromechanical Engineering Intern, Logitech

Mechanics design

- Feb. - Jun. 2022
- I proposed an innovative keyboard switch and designed three working prototypes to demonstrate the technology.
- My engineering capabilities including modeling with Creo, SLA/3DP prototyping, electromagnet and microcontroller circuits design and stepper motor control were involved.

College Student Researcher, NTU

System integration

- Jul. 2021 - Feb. 2022. A self-managed research project funded by Natinoal Science and Technology Council.
- I developed a novel spectral mapping system named HSI that integrates several electrical/optical components with LabVIEW software development environment.
- I won the following awards with this project:
  - **2021 Technology Innovation Award** by CCMS, NTU (USD$660)
  - **College Student Research Creativity Award** by National Science and Technology Council of Taiwan (USD$660)

Project Lead, Bio-Electromagnetics Laboratory, NTU

Electrical system integration, mechanics design

- May. 2020 - Jul. 2022
- I designed a IoT machine to monitor the amount of bugs in farm fields with inhouse-designed controller board and mechanics.
- Technical aspect involved mechatronics, IoT with Arduino (XBee), PCB design (Altium), Python, SolidWorks, Raspberry Pi, MySQL.