Po-Sheng Cheng

Online Portfolio Link

Master of Industrial Design, Rhode Island School of Design, Jun. 2026
B.Sc. Bio-Mechatronics Engineering &
B.A Economics, National Taiwan University (NTU), Jan 2023

Innovative prototype engineer with 5 years of diverse experience in cutting-edge product development.

Core Competencies

- Electrical: Arduino, ESP32, Raspberry Pi, system interfaces (I2C, SPI) and PCB design
- Mechanical: CAD (SolidWorks, Fusion, Pro/E Creo), rapid prototyping (CNC, FDM/STL 3D Printing)
- Programming: C++, Java, Node.js (Express, React), Dart (Flutter), Python (PyTorch, NumPy), git
- Design: Rhino, Keyshot, Figma wireframing, Adobe Suite

Professional Experience

Graduate Instructor, RISD Co-Works Lab, Sep. 2024 - Providence, RI

Apprentice, Google Hardware Product Sprint, Jun. - Sep. 2024 Taipei, Taiwan

- Spearheaded development of an innovative HaaS lost and found platform, incorporating advanced kiosk technology and intuitive software service

E-Lab Research Assistant, RISD Industrial Design, Feb. 2024 - Providence, RI

- Led comprehensive workshops on electronics, Arduino/ESP32, RESTful API, web backend, and mobile app development
- Efficiently managed and optimized E-Lab component inventory

(Publication) TeleSHift: Telexisting TUI for Physical Collaboration & Interaction

Andrew Chen, Tzu-Ling Yang, Shu-Yan Cheng, **Po-Sheng Cheng**, Tzu-Han Lin, and Kaiyuan Lin. 2022. Recipient of the **Best Demo Award at Ubicomp/ISWC 2022 Conference**, https://doi.org/10.1145/3544793.3560323

- Engineered an innovative shape-transforming device with advanced 3D tangible user interface, revolutionizing group collaboration
- Architected comprehensive system infrastructure, integrating mechanical design and power supply circuits
- Pioneered design for manufacturability improvements, slashing assembly time by 80%

Electro-mechanical Engineering Intern, Logitech, Feb. - Jun. 2022 Hsinchu, Taiwan

- Conducted in-depth user research, interviewing 50 students to drive innovation in gaming keyboard design
- Engineered sophisticated Arduino-based control system for precision motor and electromagnet operation
- Gained comprehensive understanding of New Product Introduction (NPI) process, fostering cross-departmental collaboration across ID, PM and EE

College Student Researcher, NTU, Jul. 2021 - Feb. 2022 Taipei, Taiwan

- Pioneered development of cutting-edge spectral mapping system, integrating EMCCD with LabVIEW/C++
- Optimized core algorithm, achieving a 26% reduction in scanning time
- Honored with the 2021 Technology Innovation Award and College Student Research Creativity Award

Project Lead, Bio-Electromagnetics Laboratory, NTU, May. 2020 - Jul. 2022 Taipei, Taiwan

- Conceptualized and implemented advanced IoT system for precision monitoring of agricultural pests
- Established efficient git-based SolidWorks collaboration workflow and Notion-based BOM management system
- Leveraged expertise in automation, IoT (Arduino, XBee), PCB design (Altium), SolidWorks, and MySQL to deliver comprehensive solution