

Chi-Wei Hu

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EDUCATION

MS in Computer Science

University of Southern California (USC)

LA, United State

Sep. 2024-

MS in Biochemical Sciences

National Taiwan University (NTU)

Taipei, Taiwan

Sep.2020-July 2022

- GPA: 3.88/4.3

- Thesis: Engineering of A Multi-cell Type Immunotherapy Using synNotch-driven Macrophages

BS in Life Sciences

National Cheng Kung University (NCKU)

Tainan, Taiwan

Sep. 2017-July 2020

CS and Math-related Courses:

- Data Structure; Artificial Intelligence (Non-credit)

NCKU, 2024

- Web Development bootcamp

Udemy, 2024

- Introduction to Bioinformatics; Introduction and Practice of Bio-databases (PHP, MySQL);

Calculus; Biostatistics

NCKU, 2017-2020

PROFESSIONAL EXPERIENCE

Strong Electro-Mechanical Co., Ltd.

Tainan, Taiwan

Software Engineer, Department of Computer-Integrated Manufacturing (CIM)

Sep. 2022-Sep. 2023

- Contributed to the development of a Standalone Automation Process for etching machines in panel factory through **C#**, utilizing **SEMI Equipment Communication Standard (SECS) protocol** for device communication.
- Built a monitoring system for the exposure machine in a panel factory by **C++**, facilitating communication with **Arduino or DAQ devices** and database integration in **MySQL**.

Intern, Department of Computer-Integrated Manufacturing (CIM)

Jan. 2018, July-Aug. 2018

- Gained experience in the development of a weighing software system for large-scale vehicles in **C++**, integrating data with **MySQL**.

Projects

Personal Portfolio Website – Independent Project (Link)

- Built a personal portfolio website designed with **HTML and CSS**, choosing **flask in python** as backend and **mongoDB** as database to store information.

Movie Check Mobile App – Independent Project

- Built a customized movie tracking app designed with **SwiftUI**, handling the **TMDB database API** to fetch the latest information and media content of TV shows, and using **Express.js** to connect to a **MySQL** database for storing and tracking viewing habits.

SKILLS

Languages: C#, C++, Python

Tools: MySQL, mongDB, RS-232/RS-485 Communication protocol, SEMI Equipment Communication Standard (SECS) Communication protocol, HTML, css

Framework: SwiftUI, Express.js, Flask

RESEARCH EXPERIENCE

Thesis: Engineering of a Multi-cell Type Immunotherapy using synNotch-driven macrophages | Advisor: Prof.

Steven Lin

Apr. 2022-June 2023

- Utilized **Lenti-transfection** to introduce the synNotch tool into macrophages and T cells, thoroughly assessing its functionality via **flow cytometry**
- Conducted **Ni-NTA protein purification** for cytotoxic antibodies and evaluated their cytotoxic ability against solid tumors by **ADCC cytotoxicity assay**. Investigate the potential impact on T and NK cells by **flow cytometry**.

Academia Sinica

Taipei, Taiwan

Research Intern, Institute of Biological Chemistry | Advisor: Prof. Steven Lin

July 2019-Aug. 2019

- Develop tools for editing mitochondrial DNA using **CRISPR gene editing technology**