CHI-WEI HU

California, CA | (626)494-6280 | chiweih@usc.edu | https://www.linkedin.com/in/william-hu-922261247/

Aspiring software engineer currently pursuing a MS in Computer Science at USC. Proficient in C#, C++, and Python, with experience in establishing automation process, database, web and iOS App development. Actively seeking a software engineer internship.

Education

University of Southern California(USC) — **Los Angeles, U.S.**
MS in Computer Science — *Sept. 2024 - Present*
  – Coursework: Database Systems (CSCI585); Programming Systems Design in Java (CSCI455)

Taiwan University (NTU) — **Taipei, Taiwan**
MS in Biochemistry — *Sept. 2020 - July2022*
  – Thesis: Engineering of A Multi-cell Type Immunotherapy leveraging synNotch-driven Macrophages
  – GPA: 3.88/4.3

National Cheng Kung University (NCKU) — **Tainan, Taiwan**
BA in Life Science — *Sept. 2017-July 2020*
  – Research project: Organelle stress effect of Estrogen metabolites 4-Hydroxyestradiol and 2-Hydroxyestradiol in Astrocytes

Skills

  – **Languages**: C#, C++, Python, Java, XAML, HTML
  – **Tools**: MySQL, MongoDB, RS-232/RS-485 Communication protocol, SEMI Equipment Communication Standard (SECS) Communication protocol, CSS, SwiftUI
  – **Framework**: WPF, Express.js, Flask
  – **Coursework**: Web Development bootcamp (python/HTML); Data Structure and Algorithm (C++) (A-); Artificial Intelligence (A+); Introduction to Bioinformatics (R) (A); Introduction and Practice of Databases (PHP, MySQL) (A)

Experience

Software Engineer, Department of Computer-Integrated Manufacturing (CIM) — **Tainan, Taiwan**
Strong Electro-Mechanical Co., Ltd — *Sept. 2022- May 2024*
  – Developed a Standalone Automation Process for etching machines in panel factory in C#, utilizing SECS for device communication and improving process efficiency by 20%
  – Established a C++ monitoring system for exposure machines in a panel factory, enabling communication with embedded systems like Arduino and DAQ devices, and integrating with MySQL, resulting in a 15% reduction in downtime
  – Served as main liaison with clients during the testing phase, providing real-time support to collect feedback and coordinate with team members to iteratively optimize the codes before official launch

Intern, Department of Computer-Integrated Manufacturing (CIM) — **Tainan, Taiwan**
Strong Electro-Mechanical Co., Ltd — *July 2018-Aug. 2018*
  – Rewrote a C++ vehicle weighing system in C#, with frontend developed using WPF framework and backend integrated with MySQL database
  – Leveraged the SMTP communication protocol to implement automatic email notification, enhancing system performance and user communication

Projects & Research Experience

Movie Check Mobile App *(Link)*
  – Built a customized movie tracking app designed with SwiftUI, handling the API to fetch the latest information and media content of TV shows on TMDB website
  – Leveraged Express.js to connect to MySQL database, enabling rolling tracking and chronological statistics of viewing habits

Personal Portfolio Website *(Link)* *(Github)*
  – Built a personal portfolio website designed with HTML and CSS, deploying flask in python as backend and MongoDB as database to store information

Master Student, Institute of Biochemistry | Advisor: Steven Lin — **Taipei, Taiwan**
Academia Sinica — *Apr. 2020-June 2022*
  – Utilized Lenti-transfection to introduce the synNotch tool into various immune cell types, thoroughly assessing its functionality via flow cytometry for over 50% expression efficiency
  – Conducted Ni-NTA protein purification for cytotoxic antibodies and verified for 20% cytotoxic ability against solid tumors by ADCC cytotoxicity assay