# TING-YIN CHANG CHIEN

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## Education

**The University of Texas at Austin**                                                **Aug. 2021 – May. 2023 (Expected)**
*Master of Science in Computer Science (GPA: 3.67/4.0)*                                              *Austin, TX*

**National Taiwan University**                                                                **Sep. 2009 – June 2013**
*Bachelor of Science in Computer Science and Information Engineering (CSIE) (GPA: 3.74/4.0)*          *Taipei, Taiwan*

## Skills

| | |
|---|---|
| **Practice** | Web Development (React, Django), Database, Internet of Things, Machine Learning |
| **Coding** | Python, C/C++, React, TypeScript, Java, C#, SQL |
| **Language** | Mandarin(Native), English(Proficient), Japanese(Proficient) |

## Experience

**Graduate Research Assistant**                                                              **Jan. 2023 – present**
*The University of Texas at Austin | Linguistics Department*                                          *Austin, TX*
- Research natural language processing techniques for extracting a story from stories mixture by graph convolutional network.

**Software Engineer Intern**                                                                **May 2022 – Aug. 2022**
*Microsoft | OneDrive and Sharepoint, Project Billion Backup/Restore Team*                            *Redmond, WA*
- Designed and developed the suspension of logical master database backup for **Microsoft Azure SQL**. Saved $9000 per month for storage and transaction.
- Implemented the feature with SQL server in **C++**, backup service and watchdog in **C#**. Implemented E2E tests integrating with **T-SQL**, **Kusto**, **Azure Blob Storage** and **OneBox VM**.

**Software Engineer**                                                                       **Sep. 2020 – July 2021**
*Change Healthcare | Shop Book and Pay (SBP), Digital Experience Platform*                            *Taipei, Taiwan*
- Developed the e-commerce platform solution on Java based CMS - **Adobe Experience Manager** (AEM) that allows patients to search medical services costs and give them out-of-pocket estimation with their insurances.
- Designed an automation program using **Python** & **Selenium** to build and verify over 50 tenant-specific SBP sites, reducing time by more than 66% from 3 days to 1 day for each site.
- Developed the front-end using **React** with responsive web design, improving 40% user experience on different devices.

**Research Assistant**                                                                      **Apr. 2018 – Aug. 2020**
*National Taiwan University | Medical Computer-Aided Diagnosis System Lab, Dept. of CSIE*             *Taipei, Taiwan*
- Conducted research on tumor-related images (breast tumor, lymph node, lung nodule images, etc.) detection and classification using machine learning/deep learning methods in **Python**.
- Reduced 87% of false positives (from 29.35 to 3.8) at 98% sensitivity (AUC = 0.961) and reduced 90% of execution time (from 11 sec. to 1 sec.) in tumor detection using the modified object detection system YOLOv3.

**Software Engineer**                                                                       **Jan. 2014 – Mar. 2016**
*Brogent Technologies Inc.*                                                                       *Kaohsiung, Taiwan*
- Developed the central control system of two 4-D, somatosensory, 100-seat rides in **C/C++** with ModBus, PLC and serial communication for two full-year projects: Yumble 4-D Theatre and Wildlands Adventure Zoo Emmen 4-D Theatre.
- Designed a general UI in **C#**, saving 50% of UI implementation time for other control systems.

## Projects

**GerryMap**                                                                                     **Spring 2022**
- Developed a website for state, district and politician search related to gerrymandering.
- Implemented the front-end search/filter/sort functions and unit tests in **React** with **TypeScript**. Used **Docker** for front-end and back-end development.

**Lottery webpage**                                                                               **Dec. 2018**
- Developed a webpage for drawing the lottery using **Django** from front-end(**JavaScript** and **HTML/CSS**) to back-end(**RestAPI** and **SQL** database).

## Additional Experience

**WWOOF (Volunteering) and Working Holiday in Japan / Australia / New Zealand**                     **2016 – 2018**
- Volunteered and worked in various industries with full exposure to foreign cultures.

**Public Relations Manager, CSIE Student Association**                                             **2011 – 2012**
- Held 3 alumni forums for student career planning, developed campaigns and sought sponsorship.