

Claire Tsui

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University of California, San Diego

Bachelor of Science in Mathematics (Applied)

Minor: Computer Science

Sept 2021- Jun 2025

COURSEWORK / SKILLS

Technical skills: Java, Python, C#, C++, SQL, PHP, HTML, CSS, JavaScript, R, LaTeX, Matlab, Bash, Docker

Math: Calculus, Linear Algebra, Statistics, Differential Equations, Mathematical Reasoning, Data Analysis, Optimization

Computer Science: Web Development, Data Structures, Computer Organization, Data Mining, Recommender System

Languages: Fluent - English, Mandarin / Basic - Spanish, Korean

WORK EXPERIENCE

GIGABYTE

Taipei, Taiwan

Software Engineer (Full-stack Developer)

Jul 2025- present

- Rebuild web platforms using ASP.NET Core with MVC service components, optimizing outdated code to improve maintainability
- Build and maintain 25+ APIs to retrieve and display real-time data, using Postman to test, debug, and document API endpoints reducing backend load
- Develop 10+ responsive web pages utilizing HTML, CSS, and JavaScript with admin functions such as modify, delete, and upload files
- Manage and query large relational databases using MSSQL and DBeaver, contributing to backend data operations and supporting analytics workflows.

PetMap

San Diego, CA (Remote)

Software Engineer Intern (Front-end Developer)

Oct 2024- Mar 2025

- Implemented an interactive Google Maps view using the Maps JavaScript API, handling map initialization, custom marker creation, and dynamic data rendering
- Developed and maintain scalable, responsive PetMap web using HTML, Tailwind CSS, JS, and React.js, leading to a 40% increase in user engagement and ensuring cross-device compatibility.
- Utilized GitHub for version control, delivering over 50+ pull requests, resolving merge conflicts, and coordinating with a team of 4+ developers to deliver consistent, high-quality code updates.

Academia Sinica (Institute of Statistical Science)

Taipei, Taiwan

Research Intern

Jul 2024- Aug 2024

- Developed and conceptualized a research project under the Cancer Moonshot initiative, focusing on innovative strategies to target and analyze cancer-related biomarkers
- Conducted comprehensive correlation and integrative analysis between patients' gene expression levels and phenotypic traits, and identified key genetic markers
- Designed and generated detailed visualizations using R, including heatmaps for gene expression patterns, MA plots to assess differential expression, and volcano plots to highlight statistically significant genes

OwlTing Group

Taipei, Taiwan

Software Engineer Intern (Full-stack Developer)

Jul 2023- Aug 2023

- Developed a dynamic blog website using PHP, incorporating features such as auto-complete search, user and post creation, tagging, commenting, and categorization to enhance user experience and functionality
- Built and styled the website with responsive and visually appealing interface using fundamental HTML and CSS
- Optimized the website by leveraging Laravel's functionality, which accelerated development time by 15% and enhanced backend efficiency

ACTIVITIES

Triple C (Chinese Computer Community)

UC San Diego

Public Relation

Feb 2023- Dec 2024

- Securing sponsors and establishing collaborations for club activities with other organizations, increasing sponsorship revenue by 25%
- Managing and operating official Weixin account, posting updates and feeds according to the club's schedule, which boosted follower engagement by about 40%