Claire Tsui

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University of California, San Diego *Sept 2021- Jun 2025*
Bachelor of Science in Mathematics (Applied)   Minor: Computer Science

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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

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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 over 15,000 lines of existing code to improve maintainability
- Integrated external RESTful APIs to retrieve and display real-time data, using Postman to test, debug, and document API endpoints reducing backend load by 30%
- Develop 10+ responsive web pages utilizing HTML, CSS, and JavaScript with admin functions such as modify, delete, and upload files

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, managing 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
- Gained proficiency in Laravel, exploring its functionality and applying it to web development tasks, contributing to a deeper understanding of modern PHP frameworks
- Optimized the website by leveraging Laravel's functionality, which accelerated development time by 15% and enhanced backend efficiency

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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%