

Ting-Han (Timmy) Lin

Interaction Designer & HRI researcher at UChicago CS
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EDUCATION

The University of Chicago

Chicago, IL

MS in Computer Science & BA in Economics (4-year Joint BA/MS in Computer Science) Sep 2018 – Jun 2022

GPA: (3.77/4.00), Honors: Dean's List (2018-2019, 2021-2022), Bridge Builder Award (2021),

Metcalf Scholarship Award (2019-2021)

Taipei Wego Senior High School

Taipei, Taiwan

High School Diploma

Sep 2015 – Jun 2018

GPA: (4.18/4.30), Honors: Valedictorian (2018), High Honor Roll (2015-2018),

Honor Scholarship Prize (2015-2018)

FULL PAPER PUBLICATIONS

Benefits of an Interactive Robot Character in Immersive Puzzle Games

*Ting-Han Lin**, Spencer Ng*, Sarah Sebo (*equal contribution)

In Proceedings of the 31st IEEE International Conference on Robot & Human Interactive Communication (RO-MAN 2022). Naples, Italy, August 29 - September 2. Acceptance rate: 62%

[Paper Link](https://ieeexplore.ieee.org/document/9900828): <https://ieeexplore.ieee.org/document/9900828>

[Video Link](https://tinyurl.com/ROMAN2022-Video): tinyurl.com/ROMAN2022-Video

ThrowIO: Actuated Tangible UI that Facilitates “Throwing and Catching” Spatial Interaction with Overhanging Mobile Wheeled Robots

Ting-Han Lin, Willa Yang, Ken Nakagaki

In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI 2023). Hamburg, Germany, April 23 – April 28. Acceptance rate: 28.39%

Paper Link: To Be Appeared

Video Link: To Be Appeared

Ice-Breaking Technology: Robots and Computers Can Foster Meaningful Connections between Strangers through In-Person Conversations

Alex Wuqi Zhang, *Ting-Han Lin*, Xuan Zhao, Sarah Sebo

In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI 2023). Hamburg, Germany, April 23 – April 28. Acceptance rate: 28.39%

Paper Link: To Be Appeared

Video Link: To Be Appeared

RESEARCH EXPERIENCE

UChicago Department of Computer Science

Chicago, IL

Research Assistant at Actuated Experience Lab (AxLab) Advised by Prof. Ken Nakagaki Jan 2022 – Present

- Use Processing to program Sony toio robots, and perform object detection, physics simulation, and projection mapping for research purposes
- Lead Unity 3D activities for creative coding on topics such as designing underwater VR/AR user interfaces
- Hone electronic techniques in building Arduino and soldering wires, and practice fabrication skills in designing 3D-printed objects with Fusion 360 and cutting different materials with waterjet and laser cutters

UChicago Department of Computer Science

Chicago, IL

Research Assistant at Human-Robot Interaction (HRI) Lab Advised by Prof. Sarah Sebo

Sep 2020 – Present

- Program Nao robot, TurtleBot, and Anki Vector robot for research purposes
- Design Qualtrics surveys and conduct user studies on campus, at UChicago Mindworks, and on Prolific
- Perform data analysis in R using linear mixed-effects models to analyze participant's data in a group and using ANOVA tests to analyze group data

WORK EXPERIENCE

Upfront Healthcare Services

Chicago, IL

Data Science Fellow

Jun 2021 – Feb 2022

- Iteratively prototyped, developed, and automated data insights pipelines for anomaly detection through Microsoft Azure Synapse Analytics and Apache Spark Databricks
- Organized and structured large amounts of data into compelling reports and dashboards using SQL and Tableau
- Prototyped algorithms to promote interactive use cases including intelligent outreach and dynamic personalization

Actelligent Capital

Hong Kong

Data Scientist Intern

Jun 2020 – Sep 2020

- Extracted 20+ years of raw financial data from 100K+ companies to calculate the financial metrics in each factor of the Fama and French model using SQL and Python
- Identified and prioritized the most relevant metrics across 1000+ industries and sectors using XGBoost and Machine Learning models to ultimately predict stock price performance and risks
- Presented optimization recommendations to minimize the calculation time for financial metrics via Cython

Shanghai Commercial & Savings Bank (SCSB)

Taipei, Taiwan

Financial Services Intern

Jun 2019 – Aug 2019

- Analyzed and improved the marketing strategy of SCSB's credit card to increase its reach, engagement, and sales through Google Analytics and AdWords
- Researched on the performance of startups on OurCrowd (a SCSB-sponsored startup investing platform) to assist the investment team with adjusting the investment plans
- Extracted data from the database to analyze target audience's engagement with the online bank by Python

TEACHING & MENTORING

Teaching Assistant

DATA 21200: Mathematical Methods for Data Science II by Prof. David Biron, UChicago

Spring 2023

DATA 21100: Mathematical Methods for Data Science I by Prof. David Biron, UChicago

Winter 2023

CMSC 20300: Introduction to Human Computer Interaction by Prof. Ken Nakagaki, UChicago

Fall 2022

DATA 21200: Mathematical Methods for Data Science II by Prof. David Biron, UChicago

Spring 2022

CMSC 11800: Introduction to Data Science I by Prof. Will Trimble, UChicago

Winter 2022

Grader

MPCS 51230: User Interface and User Experience Design by Prof. André Marques, UChicago

Winter 2023

CMSC 11800: Introduction to Data Science I by Prof. Michael Franklin and Dan Nicolae, UChicago

Fall 2021

CMSC 11900: Introduction to Data Science II by Prof. Michael Franklin and Dan Nicolae, UChicago

Winter 2021

CMSC 11800: Introduction to Data Science I by Prof. Michael Franklin and Dan Nicolae, UChicago

Fall 2020

UChicago Peer Mentor & Peer Mentor Advisory Board

Spring 2019 – Fall 2021

- Led trainings for 100+ UChicago Peer Mentors and informed them of their responsibilities
- Provided direct support and direction to the incoming first-years and transfer students by responding to their questions, as they complete various tasks related to their transition to the College and the University of Chicago

SKILLS

Languages: Proficient in Mandarin and Taiwanese, Entry Level in Spanish

Programming: Python, MATLAB, R, Java, SQL, Golang, C, JavaScript, HTML/CSS, STATA, C#, OpenCV, Docker, Git

Certifications: Oracle Certified Associate Java Programmer, Microsoft Office Specialist 2010 Master, Adobe Certified Associate, Google Analytics and AdWords Certification, Certificate of Advanced Negotiation

VOLUNTEERING

FIRST LEGO League Robotics Tournament

Chicago, IL

Robot Design Judge & Table Referee

Oct 2021 – Dec 2022

- Judge students' robot performance and design in terms of how well their innovative designs and code solutions match their mission strategies and how well they repeatedly test their robot and explain their robot design process

Be The Match (National Marrow Donor Program)

Chicago, IL

Volunteer

Sep 2019 – Jun 2022

- Organized annual in-person donor registration events at the UChicago student center and invited friends, family, and colleagues to join the registry to become life-saving blood stem cell donors

UChicago Admissions Office

Taipei, Taiwan

Information Session Speaker

Sep 2021

- Invited back to Taipei Wego High School to give a talk about UChicago College on behalf of UChicago Admissions Office

EXTRACURRICULARS

UChicago Juggling Club

Chicago, IL

President

May 2019 – Jun 2022

- Directed multiple juggling performances on campus, which one of them was selected to be the finalists in 2019 UChicago Got Talent Show
- Led weekly juggling training sessions to help students learn how to juggle balls and pins

UChicago Taiwanese American Student Association (TASA)

Chicago, IL

Vice President

Oct 2018 – Jun 2022

- Hosted Taiwanese cultural festivals and organize speaker's events to promote Taiwanese culture on campus
- Cooperated with Intercollegiate Taiwanese American Students Association to offer students with opportunities for networking, leadership training, and identity-building

UChicago Intercollegiate Financial Journal Chicago (IFJ)

Chicago, IL

Senior Journal Writer

Oct 2018 – Jun 2020

- Published articles about new discovery of Artificial Intelligence to educate the undergraduate community
- Presented pitch ideas and shared writing guidance to help junior writers compose journals in weekly seminar