SZU-TUNG CHEN

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EDUCATION

University of Michigan (U of M), Ann Arbor, MI Sep 2024 - Present
Ph.D. in Industrial and Operations Engineering (**GPA:** 4.0/4.0), Member of Phi Kappa Phi

University of Michigan (U of M), Ann Arbor, MI Sep 2022 - May 2024
M.S. in Industrial and Operations Engineering (**GPA:** 4.0/4.0)

National Tsing Hua University - Hsinchu, Taiwan Sep. 2018 - June 2022
B.S. in Industrial Engineering and Engineering Management (**GPA:** 3.96/4.3, Ranking: top 5)

SKILLS

Programming Language	Python, R, C/C++, MATLAB, HTML, CSS
Tools	Analysis: Tobii Pro Lab, SPSS, Altair, Gurobi, Minitab Design: AutoCAD, Autodesk, Inventor, Illustrator, Others: Tkinter, Panel, LaTex, Git
Natural Languages	Mandarin (Native), English (Professional), Korean (fluent, TOPIK: 5)

RESEARCH EXPERIENCES

Intelligence & Human Augmentation Lab (iHub) - U of M Nov 2025 - Present
Graduate Student Research Assistant, Advisor: Prof. Manhua Wang

· Understanding computational modeling of human individual situation awareness.

Cognitive Systems Engineering Lab - U of M May 2024 - Oct. 2025
Graduate Student Research Assistant, Advisor: Prof. Yili Liu

· Modeling human performance using Python.

Stirling Group - U of M Oct. 2023 - May 2024
Graduate Student Researcher, Advisor: Prof. Leia Stirling

· Analyzed data for improving user adaptation of powered upper limb exoskeletons.
· Visualized the analysis result using Altair.

University of Michigan Transportation Research Institute May 2023 - Aug. 2023
Human Factors Group, Graduate Student Researcher, Advisor: Dr. Brian Lin

· Researched bicyclist overtaking and lane-change trajectory studies.
· Recruited and conducted simulator experiments involving 30+ subjects.
· Analyzed and visualized data using Mixed Linear Models with Python and R.
· Conducted on-road experiments on a headlight research project.

Interaction and Collaboration Research Lab (ICRL) - U of M Sep. 2022 - May 2024
Graduate Student Researcher, Advisor: Prof. Xi Jessie Yang

· Analyzed eye tracking data for a study on a driver assistance system utilizing Tobii Pro Lab.
· Developed a configurable testbed to extend its research potential for studying trust in human-automation interaction (HAI).
· Conducted human-subject experiments and analyzed the data to investigate trust and performance dynamics in human-automation interaction.

Build Model and Develop GUI for Demand Forecast of Semiconductor Raw Materials Jan. 2021 - Jan. 2022
Senior Research Project, Advisor: Prof. Chien-Wei Wu

· Used machine learning methods and time-series analysis methods to forecast 3 different chemicals with accuracy up to 97.5%.
Machine learning methods: AdaBoost Regressor, Random Forest Regressor, Support Vector Regressor
Time-series analysis methods: Autoregressive Moving Average (ARMA), Exponential Weighted Moving Average (EWMA)
· Visualized the results using Python and chose the optimal model by analyzing errors.
· Developed a user-friendly Graphical User Interface using Python, enabling seamless data forecasting across diverse datasets.

WORK EXPERIENCE

Lumentum Operations LLC Feb. 2022 - July 2022
Quality Intern *New Taipei City, Taiwan*

- Designed a tool that automated a statistical analysis process with an intuitive user interface.
- Collaborated across departments to successfully attain ISO 9001:2015 certification.

PUBLICATION

Kim, J. Y., **Chen, S. T.**, Hannan, J., Larson, H., Chung, H., Jain, T., ... & Yang, X. J. (2024, June). Evaluation of an ErgoNomiCs and Human-Automation iNteracTion (ENCHANT) Summer Camp (Evaluation). In 2024 ASEE Annual Conference & Exposition.

Lin, B. T., Bao, S., Guo, H., **Chen, S. T.**, Chuang, T. H., & Su, H. J. (2024). *A data-driven autonomous driving system for overtaking bicyclists.* US Department of Transportation Office of the Assistant Secretary for Research and Technology.

Kim, J., **Chen, S. T.**, Lester, C., & Yang, X. J. (2023). *Exploring trust and performance in human-automation interaction: Novel perspectives on incorrect reassurances from imperfect automation.* AHFE International Conference.

SERVICE & ACTIVITIES

The University of Michigan HFES Student Chapter Oct. 2024 - Oct 2025
Webmaster *Ann Arbor, MI*

- Administered the official website and social accounts of the organization by writing HTML/CSS and marketing content.
- Advertised the organization's activity in the Engineering and department newsletters.

Girls in Science and Engineering (WISE GISE) - U of M June 2023
Volunteer *Ann Arbor, MI*

- Provided hands-on STEM experiences for rising 7th and 8th-grade students.
- Illustrated autonomous vehicle research to students through a driving simulator and an eye-tracker.

Class of 2022 Commencement Nov. 2021 - June 2022
Graduate Representative of IEEM Department *Hsinchu, Taiwan*

- Arranged graduation photo shooting schedule for the IEEM department.
- Edited IEEM's section in NTHU's yearbook in collaboration with the graduation committee.

Weekend Camp for Children Between the Ages of 6-12 Jan. 2021
Executive Secretary *Hsinchu, Taiwan*

- Managed all lessons and events for participating children and arranged the camp schedule.
- Communicated with authorities and parents to understand any special needs.

Student Association of IEEM Department July 2019 - July 2020
Academic and Student Affairs Department *Hsinchu, Taiwan*

- Held reception for freshmen in IEEM.
- Arranged annual department student gathering in IEEM.
- Represented IEEM in the NTHU Engineering College camp.

HONORS

Fall 2025 IOE Graduate Student Instructor of the Semester Award Dec. 2025
Gave lectures on Cognitive Ergonomics in IOE 333 Human Factors Ergo

Candidate Rackham Graduate Student Research Grant Oct. 2025

IOE Departmental Fellowship Fall 2024 - Winter 2025
Awarded full tuition and stipends

2021 Annual Notable Topic Award of IEEM - Poster Section & Paper Section Dec. 2021, June 2022
Topic: Build Model and Develop GUI for Demand Forecast of Semiconductor Raw Materials

Academic Achievement Awards - 4-Time Winner Spring 2019 / Fall 2020 / Spring 2021 / Fall 2021
Top 5% of the semester

Nebula Scholarship Apr. 2021
Awarded to one student annually based on overall performance in IEEM