

YUAN-CHENG LIU

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EDUCATION

- Technical University of Munich, Munich** *OCT 2020 - SEP 2023*
Doctor of Engineering (Dr.-Ing.), Mechanical Engineering
Dissertation: Transparency Assessment of Automated Vehicle Human-Machine Interface (HMI)
- National Taiwan University, Taipei** *SEP 2017 - JUN 2019*
Master in Mechanical Engineering Design, Mechanical Engineering *Overall GPA: 4.08/4.30*
- National Taiwan University, Taipei** *SEP 2013 - JUN 2017*
Bachelor of Science, Mechanical Engineering. *Overall GPA: 3.82/4.30*

WORK EXPERIENCE

- A321 Trainee First Officer** *APR 2024 - JAN 2026*
STARLUX Airlines *Taoyuan, Taiwan*
- Completed intensive A321 Type Rating training, gaining deep technical knowledge of Fly-by-Wire control system, Flight Management Systems, and Electronic Centralized Aircraft Monitor
 - Holds Commercial Pilot License (CPL) with Multi-Engine and Instrument Ratings (IR), having a solid foundation in aviation regulations and real-world cockpit operations
- Early Stage Researcher** *OCT 2020 - SEP 2023*
Chair of Ergonomics, Technical University of Munich *Munich, Germany*
(*Marie Skłodowska-Curie grant agreement, European Union's Horizon 2020 research and innovation*)
- Planned and executed collaborations with the university and industrial partners across EU
 - Held stakeholder events, facilitating discussion between academia and industry stakeholders
 - Represented the SHAPE-IT consortium at international workshops, gathered feedback for industry safety needs on Human-Machine Interface (HMI)
- Research Assistant** *SEP 2019 - SEP 2020*
System Optimization Laboratory, National Taiwan University *Taipei, Taiwan*
- Planned and executed the project for cooperative robots (project manager)
 - Designed and planned automated vehicles testing field for Smart City Project

HONORS & AWARDS

- Government Scholarship to Study Abroad / GSSA (2021, Taiwan)
- Marie Skłodowska-Curie Actions (MSCA) project, Innovative Training Network (ITN) fellowship (2020-2023)

PUBLICATIONS

- Y.-C. Liu, "A continuous stable-approach index from automatic dependent surveillance-broadcast data at taipei taoyuan international airport." Manuscript submitted to Journal of Air Transport Management, 2026

- N. Figalová, H.-J. Bieg, J. E. Reiser, Y.-C. Liu, M. Baumann, L. Chuang, and O. Pollatos, “From driver to supervisor: Comparing cognitive load and eeg-based attentional resource allocation across automation levels,” *International Journal of Human-Computer Studies*, vol. 182, p. 103169, 2024
- Y.-C. Liu, N. Figalova, M. Baumann, and K. Bengler, “Human-machine interface evaluation using eeg in driving simulator,” in *2023 IEEE Intelligent Vehicles Symposium (IV)*, pp. 1–6, IEEE, 2023
- Y.-C. Liu, N. Figalova, J. Pichen, P. Hock, M. Baumann, and K. Bengler, “Workload assessment of human-machine interface: A simulator study with psychophysiological measures,” in *Human Systems Engineering and Design (IHSED 2023): Future Trends and Applications*, AHFE International, USA, 2023
- Y.-C. Liu, N. Figalová, and K. Bengler, “Transparency assessment on level 2 automated vehicle hmis,” *Information*, vol. 13, no. 10, p. 489, 2022
- Y.-C. Liu and K.-Y. Chan, “Probabilistic modeling of driver behaviors at urban crossroad interactions,” *Journal of Autonomous Vehicles and Systems*, vol. 1, no. 1, p. 011001, 2021
- Y.-C. Liu and K.-Y. Chan, “Probabilistic modeling of driver behaviors at urban crossroads,” in *International Design Engineering Technical Conferences and Computers and Information in Engineering Conference*, vol. 59216, p. V003T01A011, American Society of Mechanical Engineers, 2019