

Fu-Yin Cherng

Personal Website: <https://fuyincherng.github.io/>
Google Scholar: <https://scholar.google.com/citations?user=RNihHkMAAAAJ>

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|---------------------------|--|----------------|
| RESEARCH INTEREST | Human-Computer Interaction (HCI), Human-Centered AI (HCAI)/Human-AI Interaction (HAI), Neuroergonomics, Brain-Computer Interface (BCI), Technology-Supported Learning, Data-Driven Design | |
| EDUCATION | Ph.D. in Computer Science National Chiao Tung University, Advisor: Prof. Wen-Chieh Lin | 2013 – 2019 |
| | B.S. in Computer Science National Chiao Tung University | 2009 – 2013 |
| EMPLOYMENT HISTORY | National Cheng Kung University / Assistant Professor Computer Science and Information Engineering Dept. | 2026 - present |
| | National Chung Cheng University / Assistant Professor Computer Science and Information Engineering Dept. <ul style="list-style-type: none">Secured 3 NSTC grants and 1 industry-academia collaboration as PITaught mandatory undergraduate EMI courses with an average student feedback score of 4.5/5.0. Received awards for outstanding courses in 2024 and 2025.Publish 1 SCI-indexed paper and three full papers at the top-tier conference ACM CHI 2022, 2024, and 2025.Independently advised undergraduate and graduate students who had a paper accepted for oral presentation and two poster papers at CHI 2024 | 2021 - 2026 |
| | National Taiwan University / Adjunct Assistant Professor Information Management Dept. <ul style="list-style-type: none">Co-instruct the course, Data Structures and Advanced Programming | Spring 2021 |
| | National Taiwan University / Postdoctoral Researcher Advisor: Prof. Bing-Yu Chen; Information Management Dept. <ul style="list-style-type: none">Conducted exploratory study of developing and evaluating child-friendly programming environments with concretized computational conceptsParticipated in industrial-granted projects of NTU IoX center with Delta Electronics to develop a mixed-reality system for remote meeting and training | 2020 – 2021 |
| | University of California, Davis / Postdoctoral Researcher Advisor: Prof. Hao-Chuan Wang; Computer Sciences Dept. <ul style="list-style-type: none">Conducted research projects to discover the effect of social information on customers' preferences using surveys and behavior experimentsParticipated in writing proposals with national and industrial grants with multidisciplinary teams to design research plans | 2019 – 2020 |
| | École Polytechnique Fédérale de Lausanne / Doctoral Assistant Advisor: Prof. Pierre Dillenbourg and Prof. Robert West; Computer and Communication Sciences Dept. <ul style="list-style-type: none">Conducted research projects funded by the Swiss government to understand the evolution of the IT labor market by analyzing job titles and skillsConducted exploratory analysis to reveal what computational skills are important for the current and future labor market based on job ads and online forums | 2016 – 2017 |
| | National Chiao Tung University / Research Assistant Advisor: Prof. Wen-Chieh Lin; Computer Science Dept. | 2013 – 2019 |
| PUBLICATIONS | Peer-Reviewed International Journal Paper [J01] Yu-Ting Yen, Fang-Ying Liao, Chi-Lan Yang, Ruei-Che Chang, Fu-Yin Cherng* , | |

Bing-Yu Chen. Strange Familiars: Exploring the Design of Avatars and Virtual Environments for Reconnecting Dormant Ties in Virtual Reality IEEE Transactions on Visualization and Computer Graphics, 2025 (SCI, Q1, IF: 6.5)

[J02] I-Chao Shen, **Fu-Yin Cherng***, Takeo Igarashi, Wen-Chieh Lin, Bing-Yu Chen. EvIcon: Designing High-Usability Icon with Human-in-the-loop Exploration and Icon-CLIP. Computer Graphics Forum, 2023 (SCI, Q1, IF: 2.9)

[J03] Ching-Ying Sung, Xun-Yi Huang, Yicong Shen, **Fu-Yin Cherng**, Wen-Chieh Lin, and Hao-Chuan Wang. Exploring Online Learners' Interactive Dynamics by Visually Analyzing their time-anchored comments. Computer Graphics Forum, 2017 (SCI, Q1, IF: 2.9)

[J04] Yi-Chieh Lee, Wen-Chieh Lin, **Fu-Yin Cherng**, Li-Wei Ko. A Visual Attention Monitor Based on Steady-State Visual Evoked Potential. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015 (SCI, Q1, IF: 5.2)

[J05] Sheng-Fu Liang, Chin-En Kuo, Yi-Chieh Lee, Wen-Chieh Lin, Yen-Chen Liu, Peng-Yu Chen, **Fu-Yin Cherng**, Fu-Zen Shaw. Development of an EOG-based Automatic Sleep-Monitoring Eye Mask. IEEE Transactions on Instrumentation and Measurement, 2015 (SCI, Q1, IF: 5.9)

[J06] Hsin-Yang Ho, I-Cheng Yeh, Yu-Chi Lai, Wen-Chieh Lin, **Fu-Yin Cherng**. Evaluating 2D Flow Visualization Using Eye Tracking. Computer Graphics Forum, 2015 (SCI, Q1, IF: 2.9)

Top-Tier Conference Full Paper

Unlike many disciplines that prioritize journal publications as the main measure of success, Human-Computer Interaction (HCI) emphasizes premier conferences for disseminating high-impact research. Top-tier conferences like ACM CHI, ACM UIST, and ACM CSCW have rigorous peer-reviewed processes, often with acceptance rates below 30%, positioning them as key venues for groundbreaking work. ACM CHI, ranked A* in the CORE conference system and No.1 publication venue in HCI according to Google Scholar. Hence, publishing a full paper at ACM CHI is a significant career milestone in HCI, as it is equivalent to publishing in a top-ranked journal in other fields.

[C01] Jingxian Liao, **Fu-Yin Cherng**, Mrinalini Singh, Hao-Chuan Wang. 2025. Signals Beyond Text: Understanding How Accessing Peer Concept Mapping and Commenting Augments Reflective Mind for High-Stake Videos. Proceedings of ACM Conference on Human Factors in Computing Systems, CHI'25 (acceptance rate: 24.9%)

[C02] Yu-Jung Chung, Chen-Wei Hsu, Meng-Hsun Chan, and **Fu-Yin Cherng***. Enhancing ESL Learners Experience and Performance through Gradual Adjustment of Video Speed during Extensive Viewing. Proceedings of ACM Conference on Human Factors in Computing Systems, CHI'24 (acceptance rate: 26.4%)

[C03] **Fu-Yin Cherng***, Jingchao Fang, Jiang, Yinhao Jiang, Xin Chen, Taejun Choi, Hao-Chuan Wang. Understanding Social Influence in Collective Product Ratings Using Behavioral and Cognitive Metrics. Proceedings of ACM Conference on Human Factors in Computing Systems, CHI'22 (acceptance rate: 25%)

[C04] **Fu-Yin Cherng***, Yi-Chen Lee, Jung-Tai King, Wen-Chieh Lin. Measuring the Influences of Musical Parameters on Cognitive and Behavioral Responses to Audio Notifications Using EEG and Large-scale Online Studies. Proceedings of ACM Conference on Human Factors in Computing Systems, CHI'19 (acceptance rate: 23.8%)

[C05] Yi-Chen Lee, **Fu-Yin Cherng***, Jung-Tai King, Wen-Chieh Lin. To Repeat or Not to Repeat?: Redesigning Repeating Auditory Alarms Based on EEG Analysis.

Proceedings of ACM Conference on Human Factors in Computing Systems, CHI'19
(acceptance rate: 23.8%)

[C06] **Fu-Yin Cherng**, Wen-Chieh Lin, Jung-Tai King, Yi-Chen Lee. An EEG-based Approach for Evaluating Graphic Icons from the Perspective of Semantic Distance. Proceedings of ACM Conference on Human Factors in Computing Systems, CHI'16
(acceptance rate: 23%; Best Paper Honorable Mention Award, 4 % of over 2,000 submitted papers)

[C07] Yi-Chieh Lee, Wen-Chieh Lin, **Fu-Yin Cherng**, Hao-Chuan Wang, Ching-Ying Sung, Jung-Tai King. Using Time-Anchored Peer Commenting to Enhance Social Interaction in Online Educational Videos. Proceedings of ACM Conference on Human Factors in Computing Systems, CHI'15 (acceptance rate: 25%)

[C08] Yi-Chieh Lee, Wen-Chieh Lin, Jung-Tai King, Li-Wei Ko, Yu-Ting Huang, **Fu-Yin Cherng**. An EEG-based Approach for Evaluating Audio Notifications under Ambient Sounds. Proceedings of ACM Conference on Human Factors in Computing Systems, CHI'14 (acceptance rate: 26.7%; Best Paper Honorable Mention Award, 5 % of over 2,000 submitted papers)

International Refereed Conference & Poster Paper

[C01] Yun-Rou Lin, **Fu-Yin Cherng**, Yi-Chieh Lee, Zhu-Ying Tian, Wen-Chieh Lin. Navigating Color Constraints in Multi-View Visualizations with MVcolor. IEEE PacificVis 2025 (Conference Papers Track)

[C02] Ping (Hank) Lee, Wei-Lun Kao, Hung-Jui Wang, Ruei-Che Chang, Yi-Hao Peng, **Fu-Yin Cherng**, Shang-Tse Chen. AdvCAPTCHA: Creating Usable and Secure Audio CAPTCHA with Adversarial Machine Learning. Symposium on Usable Security and Privacy (USEC) 2024

[C03] Xun-Yi Huang, **Fu-Yin Cherng***, Jung-Tai King, Wen-Chieh Lin. EEG-based Measures of Auditory Saliency in a Complex Context. Proceedings of the 21st International Conference on Human-Computer Interaction with Mobile Devices and Services, MobileHCI'19, ACM

[P01] Yu-Jung Chung, Bei-Hong Lin, Hao-Yuan Cheng, Yu-Ting Yen, Ching-Chuan Li, **Fu-Yin Cherng***. Understanding the Effects of Short-Form Videos on Sustained Attention. In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems, CHI'24, ACM.

[P02] Ching-Ying Sung, **Fu-Yin Cherng***, Yi-Lun Chiu, Peng-Hsi Chen, Bing-Yu Chen. 3CPEs: Concrete Computational Concepts Programming Environments for Elementary Computer Science Education. In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems, CHI'24, ACM.

[P03] Meng-Yun Liao, Ching-Ying Sung, Hao-Chuan Wang, Wen-Chieh Lin, **Fu-Yin Cherng**. Embodying Historical Learners' Messages as Learning Companions in a VR Classroom. In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems, CHI'19. ACM.

[P04] Ching-Ying Sung, Xun-Yi Huang, Yicong Shen, **Fu-Yin Cherng**, Wen-Chieh Lin, and Hao-Chuan Wang. Topin: A visual analysis tool for time-anchored comments in online educational videos. In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems, CHI'16. ACM.

HONORS & AWARDS

- Recipient of Outstanding English-as-a-Medium-of-Instruction (EMI) Course Award, CCU, 2025
- Recipient of Faculty Evaluation Excellent Award, CCU, 2025

- Awarded for Outstanding Course Based on Student Evaluations, CCU, 2024, 2025
- Recipient of the Outstanding New Researcher Award Salary Incentive, CCU, 2024
- Special Recognitions for Outstanding Reviews, ACM CSCW'20, DIS'22, CHI'24, CHI'26
- Honorary Member of Phi Tau Phi, National Chiao Tung University, 2020
- ACM CHI Best Paper Honorable Mention Award, 2014, 2016

GRANTS

Principal Investigator

- **2025 - 2027** Enhancing Emotion Regulation and Affective Grounding in Instant Messaging and Group Chat through AI-Mediated Communication, NSTC114-2222-E-194-002-MY2
- **2025** Application of Human-Computer Interaction Design in Retrieval-Augmented Generation for Question Answering, Industry-academia Collaboration with Industrial Technology Research Institute
- **2024 - 2025** Understanding the Short-term and Long-term Relationship between Short-form Video Consumption and Sustained Attention, NSTC113-2221-E-194-030-
- **2022 - 2024** Neuroprint: Neuroprint: Promoting Credible Collective Reviews through Developing Neural-based Multimodal Metrics of Social Influence and Intention, MOST111-2222-E-194-008-MY2

Co-Principal Investigator

- **2025 - 2028** Developing a Highly Accurate and Trustworthy Community Fraud Prevention Mechanism for Public and Private Messages, NSTC114-2628-E-194-005-MY3
- **2021 - 2022** Nurturing STEM and Female Talent in Higher Education Cross-Disciplinary Maker Talent Development Program for AI Industry, Ministry of Education

TEACHING EXPERIENCE

Programming Design I & II, 2021 - 2025, CCU

- Mandatory undergraduate EMI course
- Average Feedback Score: 4.5 out of 5

Programming Lab for Program Design I & II, 2021 - 2025, CCU

- Mandatory undergraduate EMI course
- Average Feedback Score: 4.6 out of 5

HCI and Method of User Research & II, 2022 - 2024, CCU

- Optional graduate course
- Average Feedback Score: 4.8 out of 5

Data Structures and Advanced Program Design, 2022 - 2024, NTU

- Mandatory undergraduate course
- Co-Lectured with Prof. Bing-Yu Chen

I am willing and capable of teaching most of the introductory courses in the CSIE department.

SERVICE

Member of Academic Organization

- Taiwanese Association of Com. Human Interaction, Board Member, 2024 - 2026
- Taiwanese Association of Com. Human Interaction, Secretary General, 2022 - 2024
- Taipei ACM SIGCHI Chapter, Treasurer, 2022 - 2024

Program Committee Member

- ACM SIGCHI Best Practice Working Group, 2023
- Late-Breaking Work (LBW) Program Committee, ACM CHI 2023 - 2024

Conference Organization

- Paper Chair, TAICHI, 2024
- Poster Chair, TAICHI, 2021, 2022, 2023
- Chair of Student Volunteer, ACM MobileHCI, 2019

Reviewing

- ACM CHI, CSCW, UIST, DIS, MobileHCI, SIGGRAPH Asia
- IJHCS, International Journal of Human-Computer Studies
- IEEE VR, Access