

Chun-Wei Chiang

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SUMMARY

Ph.D. researcher in Human-AI Interaction and Applied Machine Learning with 10+ peer-reviewed publications and 3 industrial internships. Proven track record of developing AI solutions that enhance user engagement and optimize business outcomes. Skilled in building human-centered AI, A/B testing, and empirical research, seeking to drive innovation in a dynamic user-focused AI researcher role.

EDUCATION

Ph.D. in Computer Science, Purdue University 2020 - May 2025

Selected Coursework: Data Mining, Natural Language Processing, Human-AI Interaction.

M.S. in Computer Science, West Virginia University 2016 - 2018

Selected Coursework: Computer Vision, Deep Learning, Pattern Recognition.

SKILLS

Programming Language Python, Java, JavaScript, HTML, R, SQL

Machine Learning/ AI Tools TensorFlow, Pytorch, Sklearn

Web development Vue.js, Django, AWS

WORK EXPERIENCE

Purdue University January 2020 - Present

Graduate Research Assistant

- Led and executed qualitative and quantitative research, conducting **A/B tests** to evaluate human-AI teaming performance and identify key interaction variances, improving usability and engagement.
- Built and deployed a full-stack web application using **Vue.js** and **Django**, hosted on **AWS Elastic Beanstalk**, supporting data collection and analysis for over 4 research projects.
- Designed and implemented a **Large Language Model**-based chatbot to enhance human-AI teaming, improving collaboration performance by 13% in decision-making and also reducing decision bias.

Twitch June 2023 - August 2023

Applied Science Intern

- Engineered and deployed a sequential-based **collaborative filtering algorithm**, improving item recommendation precision by 15% in pilot studies.
- Analyzed large-scale user behavior datasets using data science tools and methodologies (Python, SQL), uncovering patterns and trends to refine machine learning models and improve recommendation performance, which directly enhanced user click-through rates.
- Collaborated with cross-functional teams including data engineers, product managers, and software developers to integrate new algorithms into the production pipeline.

Honda Research Institute January 2023 - May 2023

Autonomous Vehicle Research Intern

- Researched the interaction between driver emotions and vehicle systems, using data-driven methodologies to explore how emotional states impact human-vehicle interactions and improve autonomous vehicle (AV) response systems.
- Analyzed driver decision-making processes to enhance collaboration between drivers and autonomous vehicles, leading to improved safety and performance.

Brain Technologies

June 2022 - August 2022

Natural Language Processing (NLP) Research Intern

- Developed personalized product recommendation systems using Large Language Models (LLMs), leveraging user behavior data from YouTube watch history to enhance recommendation system.
- Integrated GPT-3 with online search technology to create a dynamic knowledge base, enabling real-time web information processing and delivering more accurate, context-aware responses to user queries.

West Virginia University

January 2017 - August 2019

Graduate Research Assistant

- Created a **Google Chrome extension** to collect 10K real-world data points on crowdsourcing tasks, analyzing worker's completion time and enabling better time estimation through data collection.
- Modeled task completion time, achieving approximately 70% prediction accuracy for hourly wages based on task content and metadata.
- Developed an online peer support tool to help crowd workers improve professional skills, resulting in a 32% increase in work efficiency and improving task completion rates across multiple online platforms.

Covoir

January 2019 - August 2019

Co-founder

- Secured \$500K in seed funding, successfully leading the company's initial investment round, which enabled the transition from concept to operational startup.
- Spearheaded the development of a decentralized Oracle service for blockchain applications, providing real-time access to off-chain data and enhancing blockchain functionality.

Mitake Information

November 2014 - June 2015

Software Engineer

- Developed and maintained eight high-performance Android applications for stockbrokers, utilizing the Android SDK and ensuring smooth performance across devices. The apps reached over 1 million downloads, significantly enhancing user engagement and satisfaction in the financial services industry.

HONOR AND CERTIFICATION

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- Google Certificate: Foundations of Project Management
 - Best Poster Honorable Mention, The World Wide Web Conference (WWW'19)
 - Gary Marsden Travel Awards, Conference on Human Factors in Computing Systems
 - NSF Student Travel Award, AAAI Conference on Human Computation and Crowdsourcing

PUBLICATIONS

Published 10+ peer-reviewed papers on Human-AI interaction in top conferences, including CHI, IUI, and CSCW. [[Google Scholar](#)]

- [1] Chun-Wei Chiang, Zhuoran Lu, Zhuoyan Li, and Ming Yin. "Enhancing AI-Assisted Group Decision Making through LLM-Powered Devil's Advocate". In: *Proceedings of the 29th International Conference on Intelligent User Interfaces*. 2024, pp. 103–119.
- [2] Chun-Wei Chiang, Zhuoran Lu, Zhuoyan Li, and Ming Yin. "Are Two Heads Better Than One in AI-Assisted Decision Making? Comparing the Behavior and Performance of Groups and Individuals in Human-AI Collaborative Recidivism Risk Assessment". In: *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. 2023, pp. 1–18.
- [3] Chun-Wei Chiang and Ming Yin. "Exploring the effects of machine learning literacy interventions on laypeople's reliance on machine learning models". In: *27th International Conference on Intelligent User Interfaces*. 2022, pp. 148–161.
- [4] Chun-Wei Chiang and Ming Yin. "You'd better stop! Understanding human reliance on machine learning models under covariate shift". In: *Proceedings of the 13th ACM Web Science Conference 2021*. 2021, pp. 120–129.