

Chun-Wei Chiang

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SUMMARY

Ph.D. candidate in Computer Science with expertise in Human-AI Interaction, Applied Machine Learning, and Natural Language Processing. Developed large-scale recommendation systems during internships through collaborative filtering and large language models, and improved human-vehicle interaction through machine learning. With 10+ publications, I excel at building ML solutions and communicating insights to non-technical audiences, using Python, TensorFlow, and NLP techniques. Graduating in May 2025, and actively seeking Machine Learning Engineer, Applied Scientist, and Software Engineer positions to leverage my expertise in developing innovative AI solutions.

EDUCATION

Ph.D. in Computer Science , Purdue University	2020 - May 2025
M.S. in Computer Science , West Virginia University	2016 - 2018

SKILLS

Programming Language	Python, R, JavaScript, HTML, Java
Tools and Frameworks	Git, TensorFlow, Pytorch, Sklearn, Hugging Face, Pandas
Research Skills	Data Analysis, A/B Testing, Quantitative Research, Qualitative Research
Database Management	SQL, PostgreSQL, MySQL, MongoDB
Web development	Vue.js, React, Django, Amazon Web Services (AWS)

PROFESSIONAL EXPERIENCE

Purdue University	January 2020 - Present
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Graduate Research Assistant

- Designed and implemented an LLM-based chatbot to enhance human-AI teaming, improving collaboration performance by 13% in decision-making and also reducing decision bias.
- Led and conducted comprehensive qualitative and quantitative research, using A/B testing to assess human-AI team dynamics, resulting in enhanced usability and increased engagement.
- Built and deployed a full-stack web application using Django, Vue.js, and PostgreSQL, hosted on AWS Elastic Beanstalk, supporting data collection and analysis for over 4 research projects.
- Authored multiple peer-reviewed papers, demonstrating strong technical writing and coding abilities by developing and documenting research systems that led to published results.

Twitch	June 2023 - August 2023
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Applied Science Intern

- Engineered and fine-tuned a sequential-based collaborative filtering algorithm, increasing item recommendation precision by 15% in pilot studies.
- Analyzed large-scale user behavior datasets using Python and SQL, identifying key patterns to optimize machine learning models and boost recommendation accuracy.
- Collaborated with cross-functional teams, including data engineers, product managers, and software developers, to seamlessly integrate new algorithms into the production pipeline, enhancing system efficiency and scalability.

Honda Research Institute	January 2023 - May 2023
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Research Scientist Intern

- Researched driver behavior and user experience in autonomous vehicles and conventional vehicles, leveraging quantitative analysis to design safer, more user-friendly interfaces.
- Analyzed large-scale driver interaction data with autonomous systems, identifying patterns that led to improved usability and increased driver satisfaction.

Brain Technologies

June 2022 - August 2022

Natural Language Processing (NLP) Research Intern

- Applied advanced natural language processing techniques and collaborative filtering algorithm to fine-tune and evaluate models, contributing to an AI-driven restaurant recommendation system.
- Improved existing recommendation with Large Language Models (LLMs), leveraging YouTube watch history data to enhance recommendation accuracy and relevance.
- Integrated GPT with online search technology to build a dynamic knowledge base, enabling real-time web information processing and delivering more accurate, context-aware responses.

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 2016

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

- 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.