

Chun-Wei Chiang

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SUMMARY

Highly motivated Computer Science Ph.D. Candidate with a specialization in Human-AI Interaction and Applied Machine Learning. Experienced in advancing recommendation systems to significantly enhance user engagement. Proficient in implementing AI models, conducting user studies, and developing algorithms with a user-centric approach. Eager to contribute as an Applied Scientist, aiming to spearhead innovation in human-centered AI design, and to make impactful advancements in technology that enhance user experiences and business outcomes.

EDUCATION

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

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

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

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

SKILLS

Programming Python, Java, R, JavaScript, HTML, Vue.js, Django

Machine Learning Tools Pytorch, TensorFlow, Sklearn

WORK EXPERIENCE

Purdue University January 2020 - Present

Graduate Research Assistant

- Led the design and implemented large-scale human-subject empirical studies to identify variances in AI interactions, enhancing targeted user experiences.
- Designed and implemented innovative AI literacy tools, enhancing user comprehension and promoting the appropriate usage of AI technologies.
- Built a sophisticated web application leveraging **Vue.js** and **Django**, deployed through **AWS Elastic Beanstalk**, showcasing advanced skills in full-stack development and cloud-based solutions, and supporting data-driven insights for 4+ research projects.

Twitch June 2023 - August 2023

Applied Science Intern

- Engineered and deployed a pioneering sequential-based collaborative filtering algorithm, significantly enhancing Twitch's item recommendation system. This innovation led to a remarkable 15% uplift in recommendation precision, directly boosting user engagement and retention rate on the platform.
- Analyzed user patterns through data-centric approaches to evaluate and improve the industry-leading recommendation algorithms.

Honda Research Institute January 2023 - May 2023

Research Intern

- Conducted an in-depth literature review on the relationship between driver emotions and vehicle interactions, aiming to enhance vehicular response systems to human emotional states.
- Researched driver's decision-making process to improve driver's collaboration with autonomous vehicles and other road users to achieve optimal driving safety and performance.

Brain Technologies June 2022 - August 2022

NLP Research Intern

- Pioneered the development of personalized product recommendation systems leveraging Large Language Models (LLMs), based on users' YouTube watch history.
- Created a dynamic knowledge base integrating GPT-3 with online search technology, enabling real-time web information processing.

West Virginia University

January 2017 - August 2019

Graduate Research Assistant

- Developed a pioneering online peer support tool designed to elevate crowd workers' professional skill sets, directly leading to a remarkable 31.6% surge in work efficiency.

Covoir

January 2019 - August 2019

Co-founder

- Successfully led the company's inaugural seed funding round, securing \$500K in capital. This pivotal achievement enabled Covoir to transition from the concept to the operational phase.
- Spearheaded the development of a pioneering decentralized Oracle service, enhancing blockchain functionality by providing reliable, real-time access to off-chain data.

Cateno

February 2018 - December 2018

Software Engineer Intern

- Engineered an innovative Initial Coin Offering (ICO) Governance application on the Ethereum platform, leveraging **web3.py** for seamless integration between the blockchain network and a local server.

Mitake Information

November 2014 - June 2015

Software Engineer

- Developed and maintained 8 high-performance stock exchange Android applications for stockbrokers, utilizing the Android SDK. Achieved over 1M downloads, significantly enhancing user engagement and satisfaction.

TEACHING ASSISTANT EXPERIENCE

CS 251 - Data Structures And Algorithms

Spring 2020, Spring 2022

CS 242 - Introduction to Data Science

Fall 2021

CS 180 - Problem Solving and Object-Oriented Programming

Fall 2020, Spring 2021

HONOR AND CERTIFICATION

Gary Marsden Travel Awards, Conference on Human Factors in Computing Systems (CHI'23) 2023

Google Certificate: Foundations of Project Management 2022

Best Poster Honorable Mention, The World Wide Web Conference (WWW'19) 2019

1st place in Mousebelt Pitch Competition 2019

NSF Student Travel Award, AAAI Conference on Human Computation and Crowdsourcing 2018

PUBLICATIONS

Co-authored 10+ peer-reviewed publications, including CHI, CSCW, IUI, IJCAI, and WWW.

- [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.