

Bing-Jyue Chen

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Research interest

Zero Knowledge Machine Learning (ZKML)

Education

University of Illinois Urbana-Champaign (UIUC)

Urbana, IL, United States

PHD STUDENT IN COMPUTER SCIENCE

Aug. 2023 –

- Advisor: Prof. Daniel Kang
- Design and construct ZKML frameworks with practical prover overhead.

National Taiwan University (NTU)

Taipei, Taiwan

MASTER OF SCIENCE IN COMMUNICATION ENGINEERING

Sep. 2019 – Jun. 2021

- Advisor: Prof. Tsungnan Lin
- Investigated browser fingerprinting-based anomaly detection and the blockchain scalability.

National Taiwan University (NTU)

Taipei, Taiwan

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Sep. 2015 – Jun. 2019

- Leader of NTU Sunrise, the oldest Buddhist club in Taiwan.

Publications

- [1] **Bing-Jyue Chen**, Ting-Han Jian, and Tsungnan Lin. 2021. B++: A High-Throughput Proof-of-Work based Blockchain with Eventual Consistency. 2021 IEEE International Conference on Communications (ICC).
- [2] **Bing-Jyue Chen**, Wun-Cing Liou, Hsing-Yu Shih, and Tsungnan Lin. 2021. DRAGON: Detection of Related Account Groups for Online services with uncertain graphs. 2021 IEEE Global Communications Conference (GLOBECOM).
- [3] **Bing-Jyue Chen** and De-Nian Yang. 2022. User Recommendation in Social Metaverse with VR. In Proceedings of the 31st ACM International Conference on Information & Knowledge Management (CIKM).
- [4] Maciej Styczen, **Bing-Jyue Chen**, Ya-Wen Teng, Yvonne-Anne Pignolet, Lydia Chen, and De-Nian Yang. 2022. Targeted Influence with Community and Gender-Aware Seeding. In Proceedings of the 31st ACM International Conference on Information & Knowledge Management (CIKM).
- [5] **Bing-Jyue Chen**, Chiok Yew Ho, and De-Nian Yang. 2024. AFTER: Adaptive Friend Discovery for Temporal-spatial and Social-aware XR. 2024 IEEE International Conference on Data Engineering (ICDE).
- [6] **Bing-Jyue Chen**, Suppakit Waiwitlikhit, Ion Stoica, and Daniel Kang. 2024. ZKML: An Optimizing System for ML Inference in Zero-Knowledge Proofs. In Proceedings of the 19th European Conference on Computer Systems (EuroSys).

Teaching Experiences

Fall 2018 -

Spring

2021

Networking and Multimedia Lab (EE3002), Teaching Assistant for guiding undergraduates to design applications on blockchain platforms (e.g., Ethereum).

Taipei, Taiwan

Work Experiences

Institute for Information Industry

Taipei, Taiwan

RESEARCH INTERN

Jul. 2017 – Nov. 2017

- Studied the next-generation blockchain techniques and designed blockchain applications.

Institute of Information Science, Academia Sinica*Taipei, Taiwan***RESEARCH ASSISTANT***Oct. 2021 – Jun. 2023*

- Advisor: Prof. De-Nian Yang
- Proposed a social-aware deep graph neural network that recommends attractive and non-occluded avatars for metaverse users.

University of Illinois*Urbana, Illinois***RESEARCH ASSISTANT***Aug. 2023 – Present*

- Advisor: Prof. Daniel Kang
- Designed efficient zero knowledge machine learning framework.

Awards, Fellowships, & Grants

2021	Student Grant , IEEE ICC	<i>USD 350</i>
	Honorable Mention for Outstanding Master Thesis , The institution of engineering and technology (IET)	
2020	The High Distinct Thesis Award , Alumni of NTU Sunrise	<i>USD 1700</i>
2018	Excellent Thesis Award , Alumni of NTU Sunrise	<i>USD 1000</i>
2017	Excellent Thesis Award , Alumni of NTU Sunrise	<i>USD 1000</i>
	FarEastTone Bussiness Award , MakeNTU	<i>USD 500</i>
2016	Silver Award , BIOMOD. Our website: https://biomod2016.gitlab.io/taiwan/	
	Honorable Mentioned Thesis Award , Alumni of NTU Sunrise	<i>USD 300</i>

Programming skills

- Machine learning: Python (PyTorch, PyG, sklearn, numpy, etc.)
- ZK and Blockchain: Rust, Golang, Solidity
- Others: Unity3D (C#), React (Javascript), C++, Verilog