

Cyril Shih-Huan Hsu

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Professional Summary

AI researcher with a PhD in Informatics, specializing in deep reinforcement learning, Transformer-based architectures, generative models, and multi-agent systems. Research focuses on decision-making, optimization, meta-learning, and coordination in complex networked environments, with applications spanning large-scale systems and decentralized agentic systems. Published in top-tier IEEE Transactions and leading international conferences.

Education

PhD's degree in Informatics <i>Doctor of Science</i>	<i>University of Amsterdam</i> 2021 - 2025
Master's degree in Electrical Engineering <i>Master of Science</i>	<i>National Taiwan University</i> 2013 - 2015
Bachelor's degree in Bio-environmental Systems Engineering <i>Bachelor of Science</i>	<i>National Taiwan University</i> 2009 - 2013

Work experience

University of Amsterdam <i>Postdoctoral Researcher</i>	<i>2025 - present</i> <i>Amsterdam, The Netherlands</i>
<ul style="list-style-type: none">Agentic AI-Driven Network Automation	
University of Amsterdam <i>Teaching Assistant/Student Thesis Supervisor</i>	<i>2021 - 2025</i> <i>Amsterdam, The Netherlands</i>
<ul style="list-style-type: none">Advanced Deep Learning (Course)Advanced Networking (Course)Resource Optimization for Facial Recognition Systems (Thesis)Multi-domain Simulation Framework for Virtualized Infrastructures (Thesis)	
NEC Laboratories Europe <i>Visiting Researcher</i>	<i>2024 - 2024</i> <i>Heidelberg, Germany</i>
<ul style="list-style-type: none">Vision Transformer-Based Framework for Real-Time Radio Quality PredictionDistributed Vision-Language Model-Based Multi-Robot Coordination System	
Deep Cube SA <i>CTO & Co-founder</i>	<i>2018 - 2021</i> <i>Lausanne, Switzerland</i>
<ul style="list-style-type: none">Glaucoma Screening SystemSkin Disorder Analysis DeviceData Collection Platform for Medical Centers	
Relajet Technologies Ltd. <i>Technical Director of Artificial Intelligence</i>	<i>2018 - 2020</i> <i>Taipei, Taiwan</i>
<ul style="list-style-type: none">Real-time Voice Identification/Speech Enhancement System	

- Real-time Facial Recognition System
- Multimodal Interactive Chatbot
- Deep Neural Networks for Embedded System

Language proficiencies

English	Fluent
Mandarin	Native

Selected Publications

- Conference** **Hsu, C. S. H.**, Li, X., Zanzi, L., Yang, Z., Papagianni, C., & Costa-Perez, X. (2026). MapViT: A Two-Stage Vision Transformer-Based Framework for Real-Time Radio Quality Map Prediction in Dynamic Environments. In 2026 IEEE International Conference on Communications (ICC).
- Conference** Dalgkitsis, A., **Hsu, C. S. H.**, Papagianni, C., Grosso, P., & de Laat, C. (2025). LLM-based Optimization Algorithm Selection for High-Performance Networks Orchestration. Proceedings of the SC '25 Workshops of the International Conference for High Performance Computing, Networking, Storage and Analysis (SC Workshops).
- Conference** **Hsu, C. S. H.**, Papagianni, C., & Grosso, P. (2025). RAILS: Risk-Aware Iterated Local Search for Joint SLA Decomposition and Service Provider Management in Multi-Domain Networks. In 2025 IEEE Conference on High Performance Switching and Routing (HPSR).
- Conference** **Hsu, C. S. H.**, De Vleeschauwer, D., Papagianni, C., & Grosso, P. (2025). Online SLA Decomposition: Enabling Real-Time Adaptation to Evolving Network Systems. In 2025 Joint European Conference on Networks and Communications & 6G Summit (EuCNC).
- Conference** **Hsu, C. S. H.**, Martín-Pérez, J., Papagianni, C., & Grosso, P. (2023). V2N Service Scaling with Deep Reinforcement Learning. In 2023 IEEE Conference on Network Operations and Management Symposium (NOMS).
- Conference** Sun, M. C., **Hsu, C. S. H.**, Yang, M. C., & Chien, J. H. (2018). Context-Aware Cascade Attention-Based RNN for Video Emotion Recognition. In 2018 First Asian Conference on Affective Computing and Intelligent Interaction (ACII Asia).
- Conference** Chang, W. Y., **Hsu, C. S. H.**, & Chien, J. H. (2017). FATAUVA-Net: An Integrated Deep Learning Framework for Facial Attribute Recognition, Action Unit Detection, and Valence-Arousal Estimation. In 2017 IEEE Conference on Computer Vision and Pattern Recognition Workshops (CVPRW).
- Conference** **Hsu, C. S. H.**, & Yu, T. L. (2015). Optimization by Pairwise Linkage Detection, Incremental Linkage Set, and Restricted/Back mixing: DSMGA-II. In Proceedings of the 2015 Annual Conference on Genetic and Evolutionary Computation (GECCO).
- Journal** **Hsu, C. S. H.**, Dalgkitsis, A., Papagianni, C., & Grosso, P. (2025). Transformer-Empowered Actor-Critic Reinforcement Learning for Sequence-Aware Service Function Chain Partitioning. In 2026 IEEE Transactions on Network Science and Engineering (TNSE).
- Journal** **Hsu, C. S. H.**, Martín-Pérez, J., De Vleeschauwer, D., Valcarengi, L., Li, X., & Papagianni, C. (2025). A Deep RL Approach on Task Placement and Scaling of Edge Resources for Cellular Vehicle-to-Network Service Provisioning. In 2025 IEEE Transactions on Network and Service Management (TNSM).
- Journal** **Hsu, C. S. H.**, De Vleeschauwer, D., & Papagianni, C. (2023). SLA Decomposition for Network Slicing: A Deep Neural Network Approach. In 2023 IEEE Networking Letters (NL).