CHI-YANG HSU

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EDUCATION

Penn State University   *Class of 2021*
Department of Information Sciences and Technology
Master of Science
– **Advisor:** Ting-Hao (Kenneth) Huang

Penn State University   *Class of 2019*
Department of Information Sciences and Technology
Bachelor of Science

CONFERENCE PUBLICATIONS

1. **Learning to Rank Visual Stories From Human Ranking Data**
   Chi-Yang Hsu, Yun-Wei Chu, Vincent Chen, Kuan-Chieh Lo, Chacha Chen, Ting-Hao K. Huang, Lun-Wei Ku,
   Published in ACL 2022 (8 pages) [PDF]

2. **Plot and Rework: Modeling Storylines for Visual Storytelling**
   Chi-Yang Hsu, Yun-Wei Chu, Ting-Hao K. Huang, Lun-Wei Ku,
   Published in ACL-IJCNLP 2021 Findings (8 pages) [PDF]

3. **Stretch-VST: Getting Flexible With Visual Stories**
   Chi-Yang Hsu, Yun-Wei Chu, Tsai-Lun Yang, Ting-Hao (Kenneth) Huang, Lun-Wei Ku
   Published in ACL-IJCNLP 2021 Demo [Video] [Demo]

4. **Using Tweets to Assess Mental Well-being of Essential Workers During the COVID-19 Pandemic**
   Johnna Blair, Chi-Yang Hsu, Ling Qiu, Shih-Hong Huang, Ting-Hao (Kenneth) Huang, Saeed Abdullah. Published in CHI LBW 2021 [ACM DL][PDF][NEWS]

5. **Knowledge-Enriched Visual Storytelling**
   Chao-Chun Hsu, Zi-Yuan Chen, Chi-Yang Hsu, Chih-Chia Li, Tzu-Yuan Lin, Ting-Hao 'Kenneth' Huang, Lun-Wei Ku. Published in AAAI 2020 [PDF]

6. **Navigating Ride-Sharing Regulations: How Regulations Changed the 'Gig' of Ride-Sharing for Drivers in Taiwan**
   Anita Chen, Chien-Wen Yuan, Ning F. Ma, Chi-Yang Hsu, Benjamin V. Hanrahan. Published in CHI 2019 [ACM DL][PDF]

WORKSHOP PUBLICATIONS

1. **Let's Talk! Striking Up Conversations via Conversational Visual Question Generation**
   Shih-Han Chan, Tsai-Lun Yang, Yun-Wei Chu, Chi-Yang Hsu, Ting-Hao Huang, Yu-Shian Chiu, Lun-Wei Ku. Published in AAAI 2021 Workshop (Deep-Dial 2021) [PDF]

2. **Ameliorating Farmer Suicides by Predicting Crop Price Trends using a Deep Learning Approach**
   Maryam Tabar, Chi-Yang Hsu, Hangzhi Guo, Amirreza Bagherzadehkhorasani, Amulya Yadav. Published in ECAI Workshop (AI4EQ 2020) [PDF]

RESEARCH EXPERIENCE

University of Washington – Behavioral Data Science Group July 2021 – present
NLP Research Intern – Supervised by Prof. Tim Althoff

- Patient Health Questionnaire (PHQ-9) prediction for virtual platform conversations: Predict PHQ through conversations, and conduct thorough analyses to comprehend the change in PHQ based on linguistic features of clients and therapists.

Academia Sinica – NLPSA Lab (中研院, 台灣) May 2019 - June 2021
NLP Research Assistant – Supervised by Dr. Lun-Wei Ku

- Visual Storytelling: Designed novel knowledge graph-integrated visual story generation frameworks. The proposed frameworks generate more diverse, coherent, human-like stories. In addition, we also designed tailored evaluation metrics for visual storytelling.

Penn State University – Crowd-AI Lab August 2019 - June 2021
Lab Member – Supervised by Prof. Ting-Hao (Kenneth) Huang

- Essential Workers Mental Well-being Assessment: Assessed 1752 essential workers mental health well-being during COVID-19. Collected tweets and conducted sentiment and behavioral analyses, compared against regular users.
- Visual Storytelling: Collaborated with Dr. Lun-Wei Ku from Academia Sinica.

WORK EXPERIENCE

Penn State University – Instructional Assistant August 2019 - December 2019
Instructional Assistant for IST 361: Application Development Design Studio

- Sole grader for application proposals, Unified Modeling Language (UML) designs, and Java Model-View-Control programming.

Interserv International Inc May 2018 - August 2018
Game Development Internship

- Developed a candy-crush-like game and implemented a Deep Reinforcement Learning Model as an automated play-testing AI.

ACADEMIC ACTIVITIES

Conference Presentations

- "Learning to Rank Visual Stories From Human Ranking Data" ACL'22. Poster

- "Plot and Rework: Modeling Storylines for Visual Storytelling" ACL-IJCNLP Finding '21. Video

- "Stretch-VST: Getting Flexible With Visual Stories" ACL-IJCNLP Demo '21. Video

- "Using Tweets to Assess Mental Well-being of Essential Workers During the COVID- 19 Pandemic" CHI LBW '21. Poster

- "Knowledge-Enriched Visual Storytelling" AAAI '19. Poster

Peer Reviewer

- The Annual Conference on Innovative Applications of Artificial Intelligence (IAAI'22)

TECHNICAL STRENGTHS AND CERTIFICATIONS

Machine Learning Programming	Pytorch, Tensorflow, Scikit-learn
Machine Learning Techniques	Nature Language Processing, Vision-to-Language, Knowledge Graph and Relation Extraction
Computer Languages	Python, Java, C#, Linux, Latex, HTML, CSS.
Other Technical Skills	Human Center Design, Human Center Interaction.
Certificates	Human Subjects Research (IRB), National Security Agency - IST (UCT) Certificate,