Jia-Kai CHOU

University of California, Davis

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EXPERIENCE

JAN 2015 ~ PRESENT — Post-Doctoral Researcher at UNIVERSITY OF CALIFORNIA, DAVIS

Research on numerous topics primarily within the fields of information visualization and visual analytics. Topics including:

- Privacy aware visualization design.
- Visual analytics systems for biomedical and medical data.
- Personal visualization & visual storytelling.

OCT 2013 ~ NOV 2014 — Assistant IT Coordinator (Alternative Military Service) at DEPARTMENT OF INFORMATION TECHNOLOGY, Taipei City Government

Planned a $1-billion NTD budget for IT&C equipment and software systems for 2017 Taipei Universiade, coordinated with FISU's IT&C consultant on behalf of IT&C Division, Taipei Organization Committee.

FEB 2012 ~ OCT 2012 — Visiting Student at UNIVERSITY OF CALIFORNIA, DAVIS

Studied the performance of audio-augmented visualization.

SUMMER 2010 — Summer Intern at TREND MICRO, INC.

Integrated multiple visualization toolkits for network user behavior analysis.

SEP 2007 ~ JUL 2013 — Graduate Student Research Assistant at National Taiwan University of Science and Technology

Research on algorithm design and system development for multimedia applications. Topics including:

- Interactive systems for simulating facial features and hairstyle swapping in images.
- Privacy aware image, video, and volumetric data storage and processing.
- Visual analysis of time-varying network data.

EDUCATION

JULY 2013 — Ph.D., Information Management | Advisor: Prof. Chuan-Kai Yang
National Taiwan University of Science and Technology
Dissertation: Privacy Preserving Multimedia Data Processing

JULY 2009 — M.S., Information Management | Advisor: Prof. Chuan-Kai Yang
National Taiwan University of Science and Technology
Thesis: Virtual Haircut and Hairstyle Cloning

JULY 2007 — B.S., Information Management
National Taiwan University of Science and Technology

HONORS AND AWARDS

2017 — Winner of PacificVis 2017 Visual Storytelling Contest

2016 — Honorable Mention Paper Award, Siggraph Asia 2016 Symposium on Visualization

2015 — Post-doctoral Research Abroad Grant, Ministry of Science & Technology, Taiwan

2015 — Winner of Originality in IEEE VGTC VPG International Data-Visualization Contest

2012 — Ph.D. Student Study Abroad Scholarship, Ministry of Science & Technology, Taiwan

Services

Program Committee Member

- IEEE Pacific Visualization Symposium (2017)

Paper Reviewer

- Eurographics/IEEE Conference on Visualization (2017)
- IEEE Pacific Visualization Symposium (2017)
- ACM Transactions on Knowledge Discovery from Data
- IEEE Information Visualization Conference (2016, 2017)
- IEEE Conference on Visual Analytics Science and Technology (2016, 2017)
- International Symposium on Graph Drawing & Network Visualization (2016)
- IEEE International Conference on Big Data Computing Services and Applications (2016)
- Workshop on Visualization in Practice (2016, 2017)
- IEEE International Conference on Big Data (2013)

Publications

"A Utility-aware Visual Approach for Anonymizing Multi-attribute Tabular Data", Xumeng Wang, **Jia-Kai Chou**, Wei Chen, Huihua Guan, Wenlong Chen, Tianyi Lao, and Kwan-Liu Ma, to appear in IEEE Transactions on Visualization and Computer Graphics (accepted for oral presentation in IEEE VAST 2017)

"Aiding Infection Analysis and Diagnosis Through Temporally-Contextualized Matrix Representations", Maksim Gomov, **Jia-Kai Chou**, Jianping Kelvin Li, Soman Sen, Kiho Cho, Nam Tran, and Kwan-Liu Ma, accepted for oral presentation in IEEE VIS 2017 Workshop on Visual Analytics in Healthcare

"Privacy Preserving Visualization: A Study on Event Sequence Data", **Jia-Kai Chou**, Yang Wang, and Kwan-Liu Ma, invited submission to Computer Graphics Forum (under revision)

"Privacy Preserving Visualization for Social Network Data with Ontology Information", **Jia-Kai Chou**, Chris Bryan, and Kwan-Liu Ma, In Proceedings of 2017 IEEE Pacific Visualization Symposium

"A Visual Analytics System for Brain Functional Connectivity Comparison across Individuals, Groups, and Time Points", Takanori Fujiwara, **Jia-Kai Chou**, Chris Bryan, Andrew M McCullough, Charan Ranganath, and Kwan-Liu Ma, In Proceedings of 2017 IEEE Pacific Visualization Symposium

"Privacy Preserving Event Sequence Data Visualization using a Sankey Diagram-like Representation", **Jia-Kai Chou**, Yang Wang, and Kwan-Liu Ma, ACM SIGGRAPH ASIA 2016 Symposium on Visualization (Best Paper Honorable Mention Award)

"Obfuscated Volume Rendering", **Jia-Kai Chou** and Chuan-Kai Yang, The Visual Computer, 32(12), 1593-1604, 2016

"Encryption Domain Content-based Image Retrieval and Convolution through a Block-based Transformation Algorithm", **Jia-Kai Chou**, Chuan-Kai Yang, and Hsing-Ching Chang, Multimedia Tools and Applications, 75(21), 13805-13832, 2016

"A Study of using Motion for Comparative Visualization", Chien-Hsin Hsueh, **Jia-Kai Chou**, and Kwan-Liu Ma, In Proceedings of 2016 IEEE Pacific Visualization Symposium

"A Design Study of Personal Bibliographic Data Visualization", Tsailing Fung, **Jia-Kai Chou**, and Kwan-Liu Ma, In Proceedings of 2016 IEEE Pacific Visualization Symposium

"An Interactive Visual Analysis Tool for Cellular Behavior Studies using Large Collections of Microscopy Videos", Chuan Wang, **Jia-Kai Chou**, Kwan-Liu Ma, Arpad Karsai, Gang-Yu Liu, Ying X. Liu, Evgeny Ogorodnik, and Victoria Tran, 2016 IEEE International Conference on Multimedia Big Data

"High Performance Heterogeneous Computing for Collaborative Visual Analysis", Kelvin Li, **Jia-Kai Chou**, and Kwan-Liu Ma, ACM SIGGRAPH ASIA 2015 Symposium On Visualization In High Performance Computing

"A Study on Enhancing Timeline-Like Visualization with Verbal Text", **Jia-Kai Chou**, Issac Liao, Kwan-Liu Ma, and Chuan-Kai Yang, Cyberworlds 2013

"Simulation of Face/Hairstyle Swapping in Photographs with Skin Texture Synthesis", **Jia-Kai Chou** and Chuan-Kai Yang, Multimedia Tools and Applications 63(3):729-756, 2013

"Face-off: Automatic Alteration of Facial Features", **Jia-Kai Chou**, Chuan-Kai Yang, and Sing-Dong Gong, Multimedia Tools and Applications 56(3):569-596, 2012

"PaperVis: Literature Review Made Easy", **Jia-Kai Chou** and Chuan-Kai Yang, Computer Graphics Forum (EuroVis 2011), 30(3):721-730, 2011