

# Jia-Kai CHOU, Ph.D.

Post-doctoral Researcher, Dept. of Computer Science, University of California, Davis

<https://jjkai.github.io>

<https://www.linkedin.com/in/jjkai/>

+1 626-566-5381

[jiakai.chou@gmail.com](mailto:jiakai.chou@gmail.com)

## SUMMARY

I design interactive systems that incorporate both data science and visualization capabilities to perform effective data analytics. The systems I build allow domain experts to derive new insights from data and convey findings more efficiently. I am looking for opportunities to employ my knowledge to help industrial practitioners gain better understanding of their data.

## SKILLS & EXPERTISE

**Data Science & Visualization:** Python (Pandas, NumPy, scikit-learn), TensorFlow, R, SQL, D3.js, ggplot2, Shiny

**UX:** Experiment Design, Quantitative analysis (Hypothesis testing), Qualitative analysis

**Web:** Javascript, Node.js, Express.js, D3.js, CSS

**Programming:** Python, Matlab, C/C++, OpenGL, Qt, Git

## EMPLOYMENT & EXPERIENCE

**Post-Doctoral Researcher**, Dept. of CS, University of California, Davis

Jan. 2015

Supervised more than 10 student researchers and published more than 10 papers. Conducted research spans the fields of information visualization and visual analytics:

- Present

- Introduced novel visualization techniques for performing event sequence analysis.
- Created visual interfaces to handle privacy concerns in multiple types of data, such as event sequence, social network, and tabular data. *Development environment: Node.js, D3.js, Python.*
- Incorporated data mining and statistical algorithms to interactive systems for enabling domain experts, such as neuroscientists and clinicians, to analyze their data at scale. *Development environment: Python, R, TensorFlow.*
- Designed user studies and performed statistical analysis on the results using R.

**Assistant IT Coordinator**, Dept. of IT, Taipei City Government, Taiwan

Oct. 2013

Planned a \$1-billion NTD budget on IT equipment and software systems for 2017 Taipei Universiade.

- Nov. 2014

**Visiting Student**, Dept. of CS, University of California, Davis

Feb. 2012

Developed an interactive system augmented with text-to-speech audio for analyzing the temporal dynamics of social interactions. *Development environment: Qt, OpenGL, C++.*

- Oct. 2012

**Summer Intern**, Trend Micro, Inc., Taipei, Taiwan

Summer 2010

Integrated multiple visualization toolkits for network user behavior analysis.

**Graduate Student Researcher**, Dept. of Information Management,

Sep. 2007

National Taiwan University of Science and Technology

- Jul. 2013

Implemented algorithms and systems for multimedia applications:

- Interactive systems for simulating facial features and hairstyle swapping in images. *Development environment: Visual Studio, C++, and Matlab.*
- Privacy aware image, video, and volumetric data storage and processing. *Development environment: Qt, C++, Matlab, GLSL.*
- Visual analysis of time-varying social network data. *Development environment: Qt, C++, MS SQL.*

## EDUCATION

Ph.D., Information Management, National Taiwan University of Science and Technology

Jul. 2013

Advisor: Prof. Chuan-Kai Yang    Dissertation: Privacy Preserving Multimedia Data Processing

M.S., Information Management, National Taiwan University of Science and Technology

Jul. 2009

Advisor: Prof. Chuan-Kai Yang    Thesis: Virtual Haircut and Hairstyle Cloning

## HONORS & AWARDS

**Winner** of PacificVis 2017 Visual Storytelling Contest

**Best Paper Honorable Mention Award**, Siggraph Asia 2016 Symposium on Visualization

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

## PUBLICATIONS

I have authored and co-authored more than 15 papers on information visualization, human computer interaction, and multimedia systems. Titles and their summaries are available upon request.