

Noah (Fangzhou) Wang

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Work Experience

Accessibility Engineering Group, Google, Inc. Software Engineer

June 2014 - Current

Designing / building / testing software for People with disabilities.

Selected Projects:

Auto-captioning of sound effects for YouTube videos

Jan 2015 - Current

Designing and implementing a pipeline that classifies audio segments in the uploaded video and process the result into captions e.g. [laughter], [applause]. Led the end-to-end project execution from designing to product launch, as a cross-team effort with Google Research and YouTube. The original idea was based on the research I have done during my Master's (see publication list).

Articles:

Accessibility Settings & Setup Wizard for Android

Jan 2015 – Aug 2016

Designing and implemented 'Vision Settings' on Android's set up wizard to provide easier onboarding experience for Android to configure accessibility settings e.g. font size, contrast, etc. Worked with designers to develop UI frontend for the user to configure each accessibility settings. The same screen is also implemented in System Settings.

Articles: [Android Central](#), [Thurrott](#)

Geo Photo group, Google Beijing Research/Software Engineer Intern

July 2012 - Feb 2013

Selected Projects:

Hierarchical Route Maps for Efficient Navigation

July 2012 - Sep 2012

As a collaborative research with the University of Tokyo and Google Research, prototyped a system that optimize user's view and providing suggestive interface for faster/easier navigation. Conducted both quantitative/qualitative user study with 20 participants. The resultant paper published won the best paper in a top-tier conference in the field of Intelligent User Interface (see publication section).

Paper: [DOI](#)

CV based fine-grained geo-tagging for user-uploaded photosets. Sep 2012 - Feb 2013

Worked on research/prototyping methods for fine-grained geo-tagging of user-uploaded photosets. Developed an algorithm that combines multiple state-of-art computer vision techniques and a few user interactions. Conducted an extensive survey across computer graphics and computer vision research field. Designed and Implemented the product-oriented algorithm out of recently published researches.

Honkomakai President

January 2011 - Feb 2014

Founded and served as President of a private teaching school in Tokyo called Honkomakai.
Managing tens of teachers and students.

Education

M.S., Computer Science

April 2012 - March 2014

Department of Computer Science, Graduate School of Information Science and Technology,
The University of Tokyo, Japan

GPA: 3.93

Thesis: Visualizing Video Sound through Sound Word Animation

Supervisor: Takeo Igarashi

B.S., Information Science

April 2008 - March 2012

Department of Information Science, School of Science, The University of Tokyo, Japan

GPA: 3.55

Thesis: Hierarchical Route Maps for Effective Navigation

Supervisor: Takeo Igarashi

Awards and Achievements

2014 IUI Best Paper Award

(February 2014)

19th International Conference on Intelligent User Interfaces, Haifa, Israel.

2nd Place in Undergraduate Student Compiler Competition (March 2011)

Department of Information Science, The University of Tokyo, Japan.

3rd Place in Undergraduate Student Reversi AI Competition (August 2010)

Department of Information Science, The University of Tokyo, Japan.

Publications

International Journals and Conferences (Peer Reviewed)

F. Wang, H. Nagano, K. Kashino and T. Igarashi, "Visualizing Video Sounds With Sound Word Animation to Enrich User Experience," in *IEEE Transactions on Multimedia*, vol. 19, no. 2, pp. 418-429, Feb. 2017.

[Automatic visualization of non-verbal sounds in a video with comic-book-like animated sound words (onomatopoeias).]

F. Wang, H. Nagano, K. Kashino and T. Igarashi, "Visualizing video sounds with sound word animation," *2015 IEEE International Conference on Multimedia and Expo (ICME)*, Turin, 2015, pp. 1-6. [Short version of the Journal paper above.]

Fangzhou Wang, Yang Li, Daisuke Sakamoto, Takeo Igarashi. Hierarchical Route Maps for Efficient Navigation. In *Proceedings of the 19th international conference on Intelligent User Interfaces (IUI '14)*, pp. 169-178. **(Best Paper Award)**

[Improved pan & zoom user interface for smarter navigation by analyzing the area of interests for the user in a route map.]

Japan Domestic Journals and Conferences (Peer Reviewed)

Fangzhou Wang, Yang Li, Takeo Igarashi, Hierarchical Route Maps for Efficient Navigation. *Computer Software* 30, 3 (2008), pp. 64-75.

Fangzhou Wang, Yang Li, Takeo Igarashi, Hierarchical Route Maps for Efficient Navigation, In *Proceedings of the 20th Workshop on Interactive Systems and Software (WISS 2012)*, pp. 55-60.

Other activities

Referee Chair of East-Japan Student English Discussion Competition 2011 June 2011

Chair of Referee team (50 members) and in charge of defining judging criteria.

First Place in East-Japan Student English Discussion Competition 2010 March 2010

English debate competition held by the Universities' E.S.S. (English Speaking Society) League.

Skills

Work-related Skills

Human-computer interaction, Multimedia processing, Machine Learning, Computer Vision, Android Development, C++, Java, Python, Go, MATLAB.

Language Skills

Japanese (Native), Chinese (Semi-Native), English (Business level)