Tak Yeon Lee

CONTACT
INFORMATION

1712 Hogar dr., San Jose, California 95124, USA

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RESEARCH
INTERESTS

As a computer scientist, UX researcher, and front-end developer, my interest is at the intersection of Human and Artificial Intelligence. I develop interactive systems for collecting high-quality data for machine learning, visualizing complex models for ordinary people, and coupling human and AI to solve challenging problems.

PROFESSIONAL
EXPERIENCE

Abobe, San Jose, CA
Data Scientist Intern   **June 2017 – current**

- Developing a metric that estimates semantic relevance between hyperlinks and landing page

IBM, Cambridge, MA
Research Intern   **June 2012 – August 2012**

- Experiments on Motivational Feedback for Crowdsourced Workers (ICWSM 13')

Microsoft, Redmond, WA
UX Design Intern   **June 2010 – August 2010**

olaworks.com, Seoul, South Korea
UX Lead, Product Manager   **March 2007 – Febraury 2008**

EDUCATION

University of Maryland, College Park, Maryland, the United States
Doctor of Philosophy candidate, Computer Science

- Thesis: Toward Symbiotic Human-AI Interaction Focusing on Programming by Example
- Academic advisor: Professor Benjamin B. Bederson
- Accumulative GPA: 3.8 / 4.0

Delft University of Technology, the Netherlands
Master of Science, Design for Interaction

- Academic advisor: Professor dr.Pieter Jan Stappers
- Accumulative GPA: 7.6 / 10.0

Korea Advanced Institute of Science and Technology, South Korea
Bachelor of Science. Industrial Design (major), Computer Science (minor)

- Accumulative GPA: 3.01 / 4.3

PUBLICATIONS

Lee, T.Y., Smith, A., Seppi, K., Elmqvist, N., Boyd-Graber, J., and Findlater, L., The Human Touch: How Non-expert Users Perceive, Interpret, and Fix Topic Models. *International Journal of Human-Computer Studies*, Volume 105, September 2017, Pages 28-42, ISSN 1071-5819

Lee, T.Y., Dugan, C., and Bederson, B.B. Towards Understanding Human Mistakes of Programming by Example: An Online User Study. In *In Proceedings of the 22nd International Conference on Intelligent User Interfaces* (IUI '17). ACM, New York, NY, USA, 257-261

Lee, T.Y., and Bederson, B.B. Give the people what they want: studying end-user needs for enhancing the web. PeerJ Computer Science. https://doi.org/10.7717/peerj-cs.91, 2016

Smith, A., Lee, T.Y., Poursabzi-Sangdeh, F., Findlater, L., Boyd-Graber, J., Seppi, K., Elmqvist, N., and Findlater, L. Human-Centered and Interactive: Expanding the Impact of Topic Models. *CHI Human Centred Machine Learning Workshop*, 2016.

Smith, A., Lee, T.Y., Poursabzi-Sangdeh, F., Findlater, L., Boyd-Graber, J., and Elmqvist, N. Evaluating Visual Representations for Topic Understanding and Their Effects on Manually Generated Labels. *Transactions of the Association for Computational Linguistics*, 2016.

Lee, T.Y., Mauriello, M.L, Ahn, J., and Bederson, B.B. (2014, January). CTArcade: Computational thinking with games in school age children. *International Journal of Child-Computer Interaction*, Volume 2, Issue 1, January 2014, Pages 26-33, ISSN 2212-8689

Lee, T.Y., Dugan, C., Geyer, W., Ratchford, T., Rasmussen, J., Shami, N. S., and Lupushor, S. (2013, June). Experiments on Motivational Feedback for Crowdsourced Workers. *In Seventh International AAAI Conference on Weblogs and Social Media*

Lee, T.Y., Mauriello, M.L., Ingraham, J., Sopan, A., Ahn, J., Bederson, B.B., CTArcade: Learning Computational Thinking While Training Virtual Characters Through Game Play, *Extended Abstracts, Proc. ACM SIGCHI 2012: Conference on Human Factors in Computing Systems. Austin, TX*

Rios, M., Sharma, P., Lee, T.Y., Schwarts, R. and Shneiderman, B., TreeCovery: Coordinated dual treemap visualization for exploring the Recovery Act,*Government Information Quarterly (December 2011)* doi:10.1016/j.giq.2011.07.004

Gupta, N., Khurana, U., Lee, T.Y., Nawathe, S., Optimizing Display Advertisements Based on Historic User Trails, *SIGIR 2011 Workshop: Internet Advertising (IA2011)*

TEACHING EXPERIENCE

University of Maryland, College Park, MD, the United States
Teaching Assistant   **January 2009 – December 2016**
- Introduction to Object-Oriented Programming I, II (7 semesters)
- Introduction to Computer Systems (1 semester)
- Introduction to Human-Computer Interaction (2 semesters)
- Python for non-major students (2 semesters)

Seoul Women's University, South Korea
Lecturer   **March 2008 – June 2008**
- Introduction to Human-Computer Interaction

Konkuk University, South Korea
Lecturer   **March 2007 – June 2008**
- Design Studio (Undergraduate Graduation Project)
- Interaction design and Prototyping

PORTFOLIO

http://tylee-portfolio.herokuapp.com

LANGUAGE

Korean (native), English (fluent)

PROGRAMMING SKILLS

Object-Oriented Programming Java, Python
Web Front-end HTML5, CSS, Javascript
Web Back-end Google AppEngine, Heroku, node.js
Data Analysis and Visualisation Matlab, R, Python, d3, Perl, Ruby
Machine Learning and Computational Linguistics Naïve bayes, SVM, nltk, Mallet
Hardware Prototyping Arduino, Processing, vvvv, Max/MSP

DESIGN & RESEARCH SKILLS

Visual Design Photoshop, Illustrator, Powerpoint, Rhino3D and Premiere
User Study Usability test, Contextual Inquiry, Crowdsourcing, A-B testing