Kit Kuksenok

http://xnze.ro
ksenok@protonmail.com

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Education

Ph.D. in Computer Science and Engineering from University of Washington (2016)
Dissertation: **Impact apart from Adoption How Interaction between Programming and Scientific Practices Shapes Modes of Inquiry in Four Oceanography Teams**
Advised by Profs. Cecilia Aragon (UW HCDE), James Fogarty (UW CSE)

M.Sci. in Computer Science and Engineering from University of Washington (2014)
Research Topic: Capturing How People Fix Errors Made by Machine Translation
Advised by Prof. James Fogarty (UW CSE), Dr. Srinivas Bangalore (AT&T)

B.A. in Applied Mathematics; Computer Science from Oberlin College, OH USA (2010)
Research Topic: Online Resources in Chronic Illness Management
Advised by Prof. Jennifer Mankoff (Carnegie Mellon University HCII)

Software Development & Industry Research

2018+ **Senior Research and Development Engineer, jobpal in Berlin, Germany.** Design, develop, and maintain Machine Learning and Natural Language Processing services for B2B chatbot pipeline. Provide data analyses for client success, marketing, and internal monitoring. Working primarily with Python. Reference available upon request.

2017 **Developer, Chairman Projects, SAP Innovation Center in Potsdam, Germany.** Demos and installations for customer-facing showcase. Framework for designing and deploying conversational applications in Python (interpreter and NLP) and JavaScript (several demo UIs). Jan-May 2017; reference available upon request.

2014 **Researcher at Amazon.com Shared Shopping Experience** Mixed-methods research: interviews, surveys, data analysis. Unsupervised learning over user-generated NLP content. Jan-Mar 2014; reference available upon request.

2013 **Software Engineering Intern at Google Seattle DoubleClick Search**. Data analysis internal tools (Java), advertisement campaign attribution modeling

2012 **Software Engineering Summer Intern at Facebook Seattle Platform Integrity**. Data analysis internal tools (PHP, XHP), identifying and mitigating spam ("like-jacking") behavior; semi-supervised clustering, information visualization, feature engineering

2011 **Research Summer Intern at AT&T Labs Speech Team** Web application prototype (JavaScript font-end, Java back-end), statistical machine translation (NLP), crowdsourced AI

Research Topics

'18+ Enabling Explainable AI; organizational transparency in data-driven systems; and processes to improve NLP Data Quality in multi-stakeholder projects. See refs: **(Kuksenok and Martyniv, 2019; Kuksenok and Prass, 2019)**

'16-'18 Bad-by-admission code, analysis of comment use for task management and discussion. Post-doc at Hasso Plattner Institute in Prof. Dr. Robert Hirschfeld's Software Architecture group.

'13-'16 Study of programming practices among scientists. **(Kuksenok et al 2017)**
Qualitative Research. Advised by Profs. Cecilia Aragon, James Fogarty, Gina Neff

2014 Social Media and Multilingualism Online in Ukraine's Maidan Movements
Qualitative Research; Social Media Analysis. See reference: **(Kuksenok 2015)**
Central European University, supervised by Prof. Philip N. Howard.

'11-'13 Developing machine learning method for identification of emotion expression in scientific collaboration chat logs. Advised by Prof. Cecilia Aragon (UW HCDE)
See references: **(Brooks, Kuksenok, et al 2013; Scott, Kuksenok, et al 2012)**

'11-'12 Collaborative interactive machine translation. See patent: **(Bangalore, Kuksenok 2016)**

'11-'12 Ethnographic study of technological and non-technological artifacts in introductory language-learning classrooms. Supervised by Prof. Charlotte Lee (UW HCDE). See reference: **(Kuksenok et al 2013)**

'09-'11 Mixed-methods study of chronic illness patients; trust; contradictory online health information. Supervised by Prof. Jennifer Mankoff (CMU HCII).
See refs: **(Kuksenok, Mankoff et al 2013; Mankoff, Kuksenok et al 2011)**

2008 Game-theoretic analysis, simulating social network formation. Supervised by Prof. A. Sharp (Oberlin).

Skills

Code: Python (5+ years, primary), Java (10+ yrs.), JavaScript (10+ yrs.), TDD, Agile
Analysis: iPython Notebook, Vega/Altair, Tableau
ML/NLP: spacy, rasa, nltk, moses, sklearn
Qualitative: interviews, surveys, contextual inquiry, participatory design
Languages: English (native); Ukrainian and Russian (conversational); German (B2)

Peer-Reviewed Publications

Sage Jenson, Kit **Kuksenok**. Exploratory Modelling with Speculative Complex Biological Systems. xCoAx (2020)

Kit **Kuksenok**, Andriy **Martyniv**. Evaluation and Improvement of Chatbot Text Classification Data Quality Using Plausible Negative Examples. Proceedings of the First Workshop on NLP for Conversational AI. ACL (2019) `https://www.aclweb.org/anthology/W19-4110/`

K **Kuksenok**, C Aragon, J Fogarty, C P Lee, G Neff. Deliberate Individual Change Framework for Understanding Programming Practices in four Oceanography Groups. Comput Supported Coop Work (2017). doi:10.1007/s10606-017-9285-x.

Kuksenok K, Brooks M, Wang Q, Lee C P. Challenges and Opportunities for Technology in Foreign Language Classrooms. CHI 2013. Best Paper Honorable Mention (top 5%)

Kuksenok K, Mankoff J, Brooks M. Accessible Online Content Creation by End Users. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. ACM, 2013.

Brooks M, **Kuksenok** K, Torkildson M K, Perry D, Robinson J J, Scott T J, Anicello O, Zukowski A, Harris P, Aragon C. Statistical Affect Detection in Collaborative Chat. In Proceedings of the 2013 conference on Computer supported cooperative work. ACM, 2013.

Scott T J, **Kuksenok** K, Brooks M, Aragon C. Adapting Grounded Theory to Construct A Taxonomy of Affect in Collaborative Online Chat. Proceedings of the 30th ACM international conference on Design of communication. ACM, 2012.

Mankoff J, **Kuksenok** K, Kiesler S, Rode J, Waldman K. Competing Online Viewpoints and Models of Chronic Illness. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. ACM, 2011.

Selected Other Publications

Kuksenok K., and Prass N. Transparency in Maintenance of Recruitment Chatbots. arXiv preprint arXiv:1905.03640. Prepared for Bridging the Gap Between AI and HCI Workshop at CHI 2019, Saturday 4 May 2019.

Kuksenok K, and Santagati S. "Readable as Intimate: towards a conceptual framework for empirical interrogation of software implementations of intimacy." *AI Love You - Developments on Human-Robot Intimate Relationships.* Edited by Yuefang Zhou, Martin H. Fischer. 2018.

Bangalore S, and **Kuksenok** K. "System and method for collaborative language translation." U.S. Patent No. 9,323,746. 26 Apr. 2016.

Kuksenok K. "Multilingualism on Social Media in the Maidan Movement." *Digital Eastern Europe.* Edited by Schreiber and Kosienkowski. 2015.

Teaching and Mentorship

2019 Second supervisor for ChingJu Liu's Master's thesis, "Machine Translation into English from Variable Numbers of Keyframes of American Sign Language Videos"

'13-'14 **Research mentor** for 6 undergraduate and Masters' UW HCDE students working on the study of scientific creativity with Prof. Cecilia Aragon

2014 **Remixing User Research Methods** (approx. 10 graduate students)
UW HCDE reading group leader

2014 **HCDE548 Advanced InfoVis** (approx. 10 graduate students)
UW HCDE studio lead / co-instructor (with Prof. Cecilia Aragon)

2013 **CSE440 Intro to Human-Computer Interaction** (approx. 40 undergraduates)
UW CSE co-instructor (with Dr. Morgan Dixon)

'13-'14 **Research mentor and lead of Oberlin-UW Winter Term Research Program**
total 4 undergraduates over 2 January terms, in 2013 and 2014

'08-'10 **Competitive Computer Programming**: Established and taught this course for 5 semesters. It is still offered academic credit through the Oberlin Experimental College, and continues to be taught by students in order to build skills and momentum for successful participation in regional computer programming competitions. (total approx. 35 undergraduates)

'06-'07 **Intro to Java Programming** Instructor at Andrew's Leap Program Carnegie Mellon University. (total approx. 30 high school students)

Selected Invited Talks, Lectures, or Panels

2017 **Usability, Use and Reuse of Software Services: A Human Centered Approach to Understanding Uptake Resistance.** Invited, HPI 12th Symposium on the Future of Service-Oriented Computing. http://www.tele-task.de/archive/lecture/overview/9630/

2014 **Social Media in Ukraine's Maidan Movement**
Panel: Gawker Ping! conference in Budapest, Hungary (Aug. 2014)
Presentation and panel: SOYUZ symposium on post-Soviet studies at UW (Feb. 2015)
Panel video: http://bit.ly/1MZcZKv and related blog post: bit.ly/1jBGuaF

2012 **Helping Computers Find Meaning They Lost in Translation**
UW Science Speaker Series Talk at Town Hall Seattle
Keynote at Washington State Junior Science and Humanities Symposium

Interdisciplinary Workshops

2016 Summer School on **Simulation in Science**. MECS Institute for Advanced Study on Media Cultures and Computer Simulation at Leuphana University in Lueneburg, Germany.

Dagstuhl Perspectives Workshop on **Engineering Academic Software**. Schloss Dagstuhl, Germany. http://www.dagstuhl.de/16252 .

2014 Summer School on **Advocacy, Activism, and the Internet: Communication Policy for Social Change**. Central European University Center for Media, Data, and Society (CEU CMDS). Budapest, Hungary.

Selected Personal Projects

2019+ Vinyasa Yoga Teacher (200H Yoga Alliance Teacher Training from KALAA Yoga Berlin 19-20)

2019-2020 Visual Artist at **Dismantling the Face**: ink on paper exhibition; interactive video projection and performance at the Workshop on Forster (Berlin) and subsequent peer-reviewed article (Jenson and Kuksenok, 2020) (https://www.youtube.com/watch?v=qMjzLWUz2Xw)

2018-2020 Writer and Illustrator at **Lost Mail Redistribution Program**, A monthly analog visual art and narrative puzzle, and crowdfunding campaign. (http://troublebook.club/lostmail)

Fellowships, Honors, and Awards

'14-'16 Fellowship: AT&T Labs Graduate Research Fellowship

'11-'14 Fellowship: NSF Graduate Research Fellowship

2014 Residency: Center for Media and Data Studies, Central European University, Budapest

'11-'13 Scholarship: Google Anita Borg Memorial Scholarship
Scholarship: Microsoft Research Graduate Women's Scholarship

2010 Fellowship: Anne Dinning - Michael Wolf Endowed Regental Fellowship in UW CSE
Award: CRA Outstanding Undergraduate Researcher Award - Honorable Mention
Award: NSF Graduate Research Fellowship Honorable Mention

References available upon request.