

# Geza Kovacs

geza@cs.stanford.edu

gkovacs.com

EDUCATION	<b>Stanford University</b> PhD Computer Science GPA: 4.0/4.0 2013 – now <b>Massachusetts Institute of Technology</b> BS+MEng Computer Science GPA: 5.0/5.0 2008 – 2013
INDUSTRY EXPERIENCE	<b>Microsoft Research</b> – Research Intern, Redmond – work published at CSCW 2017 Summer 2015 <b>Microsoft Research</b> – Research Intern, Beijing – work published at CHI EA 2015 Summer 2014 <b>Google Research</b> – Software Engineering Intern, Mountain View Summer 2013 Developed a machine learning system for detecting taps on the phone bezel, for use in Android input methods. <b>Google</b> – Software Engineering Intern, Mountain View Summer 2012 Developed an NLP system to detect vocabulary and generate glossaries from book text (used MapReduce). <b>Google</b> – Software Engineering Intern, Mountain View Summer 2011 Developed a machine learning system to predict the quality of user reviews, now deployed on Google Play. <b>Microsoft</b> – Software Development Engineer Intern, Redmond – worked on compilers Summer 2010 <b>Google</b> – Summer of Code – worked on FFmpeg (open-source video transcoding library) Summer 2009
RESEARCH HIGHLIGHTS	<b>Large-scale Data Science Experiments for Behavior Change</b> – published at CHI 2019 and CSCW 2018 HabitLab ( <a href="https://habitlab.stanford.edu">https://habitlab.stanford.edu</a> ) is an online experimentation platform with <i>12,000+ daily active users</i> that I built. I have used it to conduct a variety of data science experiments and machine learning work: <ul style="list-style-type: none"> <li>• Predicted changes in users’ intervention preferences over time (using <b>LSTM Networks</b>; Python/PyTorch)</li> <li>• Analyzed time redistribution effects caused by interventions (using <b>Mixed Models</b>; R/Python/SciPy)</li> <li>• Analyzed effects of rotating interventions on effectiveness and attrition (<b>Cox Regression</b> and <b>LMM</b>; R)</li> <li>• Personalized interventions to each user based on effectiveness (using <b>Reinforcement Learning</b>; Python)</li> <li>• Predicted time spent on webpages, based on browsing visit history data (using <b>Random Forests</b>; Python/H2O)</li> </ul> Effects of In-Video Quizzes on MOOC Lecture Viewing – published at Learning at Scale 2016 <ul style="list-style-type: none"> <li>• A <b>large-scale data mining</b> analysis of Coursera’s in-video interaction logs in Machine Learning courses, analyzing effects of in-video quizzes on users’ video viewing and seeking behavior (Python/Hadoop/Pandas)</li> </ul>
OPEN-SOURCE PROJECTS	<b>UNetbootin (LiveUSB Creator)</b> – <a href="http://unetbootin.github.io/">http://unetbootin.github.io/</a> <a href="https://en.wikipedia.org/wiki/UNetbootin">https://en.wikipedia.org/wiki/UNetbootin</a> <i>40 million downloads.</i> UNetbootin creates bootable USB flash drives for various (50+) Linux distributions. <b>Ubuntu Installer for Windows (Wubi)</b> <a href="https://en.wikipedia.org/wiki/Wubi_(software)">https://en.wikipedia.org/wiki/Wubi_(software)</a> <i>Now part of Ubuntu.</i> Built the first versions of Wubi, which allows Ubuntu to be installed from Windows.
TEACHING EXPERIENCE	<b>Natural Language Processing</b> (6.863 at MIT, Fall 2012 TA), Human-Computer Interaction Research (CS 376 at Stanford, Fall 2018 TA), Understanding Users (CS 377U at Stanford, Spring 2019 TA)
RELEVANT COURSEWORK	<b>Deep Learning</b> (CS 230), <b>Natural Language Processing</b> (6.864, 6.863), Artificial Intelligence (6.034), Data Mining (CS 224w), Statistical Models (6.804), Statistics (18.440), Linear Algebra (18.700), Security (6.857), Bioinformatics (6.047), HCI (6.803), Algorithms (6.006, 6.046), Linguistics (24.900), Compilers (CS 143)
SKILLS AND TECHNOLOGIES	<b>Programming:</b> Python, R, JavaScript, C/C++, Java, Scala, C#, Ruby, TypeScript, CoffeeScript, Haskell, Bash <b>Machine Learning:</b> PyTorch, scikit-learn, Keras, TensorFlow, Deep Learning (RNN/LSTM/CNN/GAN), RL <b>Natural Language Processing:</b> NLTK, skip-grams, word2vec, GloVe, Attention Networks, HMM, PCFG <b>Data Mining:</b> NumPy, SciPy, Pandas, NetworkX, Hadoop, MapReduce, H2O, SQL, NoSQL (MongoDB/Redis) <b>Data Science:</b> Mixed models, Survival analysis, Experiment design, A/B testing, Multi-armed bandits, mTurk <b>Data Analysis:</b> Jupyter, RStudio, Visualization (D3.js/ggplot2/Plotly/Bokeh), Clustering, Sentiment Analysis <b>Full-Stack Engineering:</b> Node.js, Flask, MongoDB, Redis, PostgreSQL, Flow, Webpack, Vagrant, AWS EC2 <b>Web + Mobile:</b> HTML/CSS/JS, Polymer, React, Android (Java, Cordova, NativeScript), Responsive Design
AWARDS AND HONORS	Stanford Human-Centered AI Grant (for my research project HabitLab), 2018 National Defense Science and Engineering Graduate Fellowship, 2013 National Science Foundation Graduate Research Fellowship, 2013 1 <sup>st</sup> place, Most Useful, ACM UIST (User Interface Software and Technology) Student Innovation Contest, 2012 1 <sup>st</sup> place, ACM CHI (Conference on Human Factors in Computing Systems) Student Research Competition, 2012 1 <sup>st</sup> place, MIT Autonomous Robotics Competition (Maslab), 2010

**Geza Kovacs**, Drew Mylander Gregory, Zilin Ma, Zhengxuan Wu, Golrokh Emami, Jacob Ray, Michael Bernstein. “Conservation of Procrastination: Do Productivity Interventions Save Time Or Just Redistribute It?” ACM annual conference on Human Factors in Computing Systems (CHI) 2019.

**Geza Kovacs**, Zhengxuan Wu, Michael Bernstein. “Rotating Online Behavior Change Interventions Increases Effectiveness But Also Increases Attrition.” ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW) 2018.

Rajan Vaish, Neil Gaikwad, **Geza Kovacs**, Andreas Veit, Ranjay Krishna, Imanol Arrieta Ibarra, Camelia Simoiu, Michael Wilber, Serge Belongie, Sharad Goel, James Davis, Michael Bernstein. “Crowd Research: Open and Scalable University Laboratories.” ACM Symposium on User Interface Software and Technology (UIST) 2017.

Kiley Sobel, **Geza Kovacs**, Galen McQuillen, Andrew Cross, Nirupama Chandrasekaran, Nathalie Riche, Ed Cutrell, Meredith Morris. “EduFeed: A Social Feed to Engage Preliterate Children in Educational Activities.” ACM annual conference on Computer Supported Collaborative Work (CSCW) 2017.

**Geza Kovacs**. “Effects of In-Video Quizzes on MOOC Lecture Viewing.” ACM annual conference on Learning at Scale (L@S) 2016.

**Geza Kovacs** and Robert C. Miller. “Smart Subtitles for Vocabulary Learning.” ACM annual conference on Human Factors in Computing Systems (CHI) 2014.

Stanford Crowd Research, **Geza Kovacs**, Rajan Vaish, Michael Bernstein. “Daemon: A Self-Governed Crowdsourcing Marketplace”. ACM Symposium on User Interface Software and Technology (UIST) 2015, Poster.

**Geza Kovacs**. “FeedLearn: Using Facebook Feeds for Microlearning.” ACM annual conference on Human Factors in Computing Systems (CHI) 2015, Extended Abstracts.

**Geza Kovacs**. “QuizCram: A Question-Driven Video Studying Interface.” ACM annual conference on Human Factors in Computing Systems (CHI) 2015, Extended Abstracts.

Joseph Jay Williams, **Geza Kovacs**, Caren Walker, Samuel G Maldonado, Tania Lombrozo. “Learning Online via Prompts to Explain.” ACM annual conference on Human Factors in Computing Systems (CHI) 2014, Extended Abstracts.

**Geza Kovacs** and Robert C. Miller. “Foreign Manga Reader: Learn Grammar and Pronunciation while Reading Comics.” ACM Symposium on User Interface Software and Technology (UIST) 2013, Demo.

**Geza Kovacs**. “Smart Subtitles for Language Learning.” ACM annual conference on Human Factors in Computing Systems (CHI) 2013, Extended Abstracts.

**Geza Kovacs**. “ScreenMatch: providing context to software translators by displaying screenshots.” ACM annual conference on Human Factors in Computing Systems (CHI) 2012, Extended Abstracts.

### **HabitLab**

*Wired*: HabitLab Browser Extension Curbs Your Time Wasted on the Web (Jan 28, 2019)

*The New York Times*: Finding it Hard to Focus? Maybe It’s Not Your Fault (Aug 14, 2018)

*Lifehacker*: Be More Mindful of the Time You Waste Online With HabitLab (Aug 5, 2018)

### **Crowd Research / Daemon**

*Wired*: Amazon Mechanical Turk Workers Have Had Enough (Aug 23, 2017)

### **UNetbootin**

*Forbes*: How To Try Linux Without Making Any Changes To Your PC (Sep 18, 2018)

*Lifehacker*: How to Get Started With the Ubuntu Linux Distro (Nov 17, 2017)

### **Wubi**

*Ars Technica*: Wubi arrives: a look at Ubuntu 8.04 alpha 5 (Feb 24, 2008)

*Lifehacker*: Install Ubuntu on a Windows Netbook, No Partitioning Needed (May 19, 2010)