

## Education

<b>Ph.D.</b> , Computer Science	Stanford University	GPA: 4.0/4.0	2019
<b>B.S.</b> and <b>M.Eng.</b> , Computer Science	Massachusetts Institute of Technology	GPA: 5.0/5.0	2013

## Work Experience

**Senior Research Scientist** Google Mountain View Mar 2022 - present  
Working on applications of LLMs - specifically, generating synthetic datasets and fine-tuning LLMs to improve their performance on specialized tasks, evaluating LLM performance, and building LLM powered applications.

**Principal Research Scientist** Lilt San Francisco Aug 2019 - Mar 2022  
I headed a team of researchers to evaluate and improve Lilt's interactive neural machine translation system. Developed evaluation metrics for evaluating interactive machine translation systems (**WMT 2022**, **AMTA 2020**). Developed corpus and system for automatic translation error detection and correction (**NAACL 2022 best paper**). Evaluated effects of human vs machine translations on website engagement (**AMTA 2022 best presentation**). Improved interactive machine translation speed via a novel architecture that shifts computation client-side (**Patent**).

**Graduate Researcher (Ph.D)** Stanford University Advisor: Michael Bernstein Sep 2013 - July 2019  
Created HabitLab, an online platform with 12,000+ active users for conducting data science research on personalized behavior change interventions. Published papers on adaptive interventions (**CHI 2021**, **CHI 2019**, **CSCW 2018**), crowdsourcing (**UIST 2017**), large-scale interaction data mining (**L@S 2016**), NLP for language learning (**CHI 2014**).

**Research Intern** Microsoft Research Redmond Summer 2015  
Designed and built an educational social feed app usable by pre-literate children. Published at **CSCW 2017**.

**Research Intern** Microsoft Research Beijing Summer 2014  
Built QuizCram, a quiz-driven MOOC lecture viewer that improves learning outcomes. Presented at **CHI 2015**.

**Software Engineering Intern** Google Mountain View Summer 2013  
Developed a machine learning system for detecting taps on the phone bezel, for use in Android input methods.

**Software Engineering Intern** Google Mountain View Summer 2012  
Developed an NLP system to automatically generate glossaries from book text. Patent granted **US9483460B2**.

**Software Engineering Intern** Google Mountain View Summer 2011  
Developed a machine learning system to predict the quality of user reviews, now deployed on Google Play.

**Software Development Engineer Intern** Microsoft Redmond Summer 2010  
Built the IntelliSense code completion system for a scientific computing language, and contributed to its compiler.

## Publications in Academic Conferences and Journals

Francisco Casacuberta, George Foster, Guoping Huang, Philipp Koehn, **Geza Kovacs**, Lemao Liu, Shuming Shi, Taro Watanabe, Chengqing Zong. "Findings of the word-level AutoCompletion shared task in WMT 2022." *Proceedings of the Seventh Conference on Machine Translation (WMT)*. 2022.

Jessy Lin, **Geza Kovacs**, Aditya Shastry, Jorn Wuebker, John DeNero. "Automatic Correction of Human Translations" *Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*. 2022. **Best Paper Award**.

**Geza Kovacs** and John DeNero. "Measuring the Effects of Human and Machine Translation on Website Engagement." *Proceedings of the 15th biennial conference of the Association for Machine Translation in the Americas (Volume 1: Research Track)*. 2022. **Best Presentation Award**.

Samuel Läubli, Patrick Simianer, Joern Wuebker, **Geza Kovacs**, Rico Sennrich, Spence Green. "The Impact of Text Presentation on Translator Performance." *Target: International Journal of Translation Studies*, 2021.

**Geza Kovacs**, Zhengxuan Wu, Michael Bernstein. "Not Now, Ask Later: Users Weaken Their Behavior Change Regimen Over Time, But Expect To Re-Strengthen It Imminently." *ACM annual conference on Human Factors in Computing Systems (CHI)* 2021. Acceptance rate: 23%.

**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*. Acceptance rate: 23.8%.

**Geza Kovacs**, Zhengxuan Wu, Michael Bernstein. "Rotating Online Behavior Change Interventions Increases Effectiveness But Also Increases Attrition." *ACM annual conference on Computer-Supported Cooperative Work and Social Computing (CSCW) 2018*. Acceptance rate: 26%.

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*. Acceptance rate: 22%.

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 Cooperative Work and Social Computing (CSCW) 2017*. Acceptance rate: 35%.

**Geza Kovacs**. "Effects of In-Video Quizzes on MOOC Lecture Viewing." *ACM annual conference on Learning at Scale (L@S) 2016*. Acceptance rate: 22%.

Stanford Crowd Research, **Geza Kovacs**, Rajan Vaish, Michael Bernstein. "Daemo: 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*.

**Geza Kovacs** and Robert C. Miller. "Smart Subtitles for Vocabulary Learning." *ACM annual conference on Human Factors in Computing Systems (CHI) 2014*. Acceptance rate: 23%.

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*.

## Patents

**Geza Kovacs**, John DeNero. "Partial execution of translation in browser". US Patent Application US17/468,524. Filed 09/2021, Published 03/2023.

Aditya Shastry, Spence Green, Joern Wuebker, **Geza Kovacs**, Jessy Lin, John DeNero. "Apparatus and method for accurate translation reviews and consistency across multiple translators." US Patent US11361170B1. Filed 01/2020, Published 06/2022, Expires 10/2040.

Tania Bedrax-Weiss, **Geza Kovacs**, Ulas Kirazci. "Automated formation of specialized dictionaries." US Patent US9483460B2. Filed 10/2013, Published 11/2016, Expires 01/2034.

Meredith Morris, Nathalie Henry Riche, Edward B. Cutrell, Andrew C. Cross, Natasa Milic, Nirupama Chandrasekaran, Galen McQuillen, Kiley Sobel, **Geza Kovacs**. "Presenting educational activities via an extended social media feed." US Patent Application US15/255,943. Filed 09/2016, Published 03/2018.

## Invited Keynote Talks

**Geza Kovacs**. "Predictive Translation Memory in the Wild: A Study of Interactive Machine Translation Use on Lilt." *Association for Machine Translation in the Americas (AMTA) Workshop on the Impact of Machine Translation 2020*.

## Open Source Projects

- UNetbootin** (LiveUSB Creator) <https://en.wikipedia.org/wiki/UNetbootin>  
40 million downloads. UNetbootin creates bootable USB flash drives for various (50+) Linux distributions.
- Wubi** (Ubuntu Installer for Windows) [https://en.wikipedia.org/wiki/Wubi\\_\(software\)](https://en.wikipedia.org/wiki/Wubi_(software))  
Now part of Ubuntu. Built the first versions of Wubi, which allows Ubuntu to be installed from Windows.
- HabitLab** (In-the-wild Behavior Change Research Platform) <https://habitlab.stanford.edu>  
12,000+ daily active users. I built HabitLab over my Ph.D, and it is still used for research at Stanford Medical School.

## Select Awards and Honors

Best Presentation Award, AMTA 2022	2022
Best Paper Award, NAACL 2022	2022
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, ACM UIST (User Interface Software and Technology) Student Innovation Contest	2012
1 <sup>st</sup> place, ACM CHI (Human Factors in Computing Systems) Student Research Competition	2012
Phi Beta Kappa (top 10% of students at MIT), Tau Beta Pi (top 12.5% of Engineering students at MIT)	2012

## Academic Conference Reviewing and Committees

Organizing Committee, WMT 2022 Shared Task on Word-Level Auto-Completion	2022
Program Committee, EACL 2021 Bridging HCI and NLP Workshop	2021
Reviewer, ACM Conference on Human Factors in Computing Systems (CHI)	2015, 2018-2019, 2021-2024
Reviewer, ACM Conference on Designing Interactive Systems (DIS)	2023
Reviewer, ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)	2021
Reviewer, ACM Transactions on Computer-Human Interaction (TOCHI)	2022
Reviewer, ACM Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)	2019
Reviewer, ACM Symposium on User Interface Software and Technology (UIST)	2017-2018

## Researchers Managed

Sai Gouravajhala, Senior Research Scientist at Lilt.	August 2020 – March 2022
Hannah Yan, Senior Data Scientist at Lilt.	September 2020 – March 2022
Jordan Huffaker, Research Intern at Lilt. Now a Ph.D student at University of Michigan.	Summer 2021
Jessy Lin, Research Engineer at Lilt. Now a Ph.D student at UC Berkeley.	August 2019 – August 2020
Ming-Chang Chiu, Data Science Intern at Lilt. Now a Ph.D student at USC.	Summer 2020

## Teaching Experience

Understanding Users (CS 377U) – Teaching Assistant, at Stanford	Spring 2019
Human Computer Interaction Research (CS 376) – Teaching Assistant, at Stanford	Fall 2018
Natural Language Processing (6.863) – Teaching Assistant, at MIT	Fall 2012

## Skills and Technologies

**Programming Languages:** Python, JavaScript, C, C++, Java, TypeScript, R, C#, Ruby, Scala, Haskell, Bash, SQL  
**Machine Learning + Deep Learning:** Tensorflow, PyTorch, TensorflowJS, Keras, scikit-learn, xgboost, MLFlow  
**Natural Language Processing + Machine Translation:** SpaCy, tensor2tensor, fairseq, HuggingFace Transformers  
**Data Science + Visualization:** NumPy, SciPy, Pandas, Jupyter, RStudio, Plotly, Superset, Spark, Hadoop MapReduce  
**Web + Mobile Development:** HTML, CSS, React, AngularJS, NodeJS, Express, D3.js, Flask, MySQL, Docker, Android  
**Languages:** Fluent: English, Chinese (Mandarin), Hungarian. Intermediate: Japanese, Vietnamese, Spanish.

## Select Coursework

Deep Learning (Stanford CS230), Natural Language Processing (MIT 6.864+6.863), Data Science (Stanford CS224w), Machine Learning (MIT 6.034), Statistical Models (MIT 6.804), Statistics (MIT 18.440), Linear Algebra (MIT 18.700), UX Design (MIT 6.803+MAS.672), Linguistics (MIT 24.900), Bioinformatics (MIT 6.047), Algorithms (MIT 6.006+6.046)

## Selected Press

### HabitLab

- WIRED** - The HabitLab Browser Extension Curbs Your Time Wasted on the Web. January 2019  
<https://www.wired.com/story/habitlab-browser-extension/>
- Lifehacker** - Prevent Procrastination With This Chrome Extension. February 2019  
<https://lifehacker.com/prevent-procrastination-with-this-chrome-extension-1832723418>
- The New York Times** - Finding It Hard to Focus? Maybe It's Not Your Fault. August 2018  
<https://www.nytimes.com/2018/08/14/style/how-can-i-focus-better.html>
- Lifehacker** - Be More Mindful of the Time You Waste Online With HabitLab. August 2018  
<https://lifehacker.com/be-more-mindful-of-the-time-you-waste-online-with-habit-1828118354>
- WIRED** - The Chrome Extensions We Can't Live Without. February 2018  
<https://www.wired.com/story/best-chrome-extensions/>
- How-To Geek** - HabitLab Subtly Helps You Change Bad Online Habits. August 2018  
<https://www.howtogeek.com/fyi/free-download-habitlab-subtly-helps-you-change-bad-online-habits/>
- The Stanford Daily** - HabitLab browser extension aims to help users regain control of their online browsing behavior. March 2019  
<https://www.stanforddaily.com/2019/03/13/habitlab-browser-extension-aims-to-help-users-regain-control-of-their-online-browsing-behavior/>
- Entrepreneur** - Use These Strategies to Maximize Productivity Without Inventing an Extra Weekday. May 2018  
<https://www.entrepreneur.com/article/312764>
- Tencent News** - (Chinese) 这款斯坦福大学的工具，让你远离加班，提升200%效率 March 2019  
<https://new.qq.com/omn/20190311/20190311AOBBRU.html>

### Crowd Research / Daemo

- Stanford University News** - A Stanford-led platform for crowdsourced research gives experience to global participants October 2017  
<https://news.stanford.edu/2017/10/23/crowdsourced-research-gives-experience-global-participants/>
- WIRED** - Amazon's Turker Crowd Has Had Enough. August 2017  
<https://www.wired.com/story/amazons-turker-crowd-has-had-enough/>

### UNetbootin

- Forbes** - How To Try Linux Without Making Any Changes To Your PC. September 2018  
<https://www.forbes.com/sites/jasonevangelho/2018/09/18/how-to-safely-try-linux-on-your-mac-or-windows-pc/>
- PCWorld** - Create a Bootable Linux Flash Drive in Three Easy Steps. February 2012  
[https://www.pcworld.com/article/249870/create\\_a\\_bootable\\_linux\\_flash\\_drive\\_in\\_three\\_easy\\_steps.html](https://www.pcworld.com/article/249870/create_a_bootable_linux_flash_drive_in_three_easy_steps.html)
- Lifehacker** - The Complete Guide to Saving Your Windows System with a Thumb Drive. March 2010  
<https://lifehacker.com/the-complete-guide-to-saving-your-windows-system-with-a-5504531>

### Wubi

- Ars Technica** - Wubi arrives: a look at Ubuntu 8.04 alpha 5. February 2008  
<https://arstechnica.com/information-technology/2008/02/wubi-arrives-a-look-at-ubuntu-8-04-alpha-5/>
- Lifehacker** - Install Ubuntu on a Windows Netbook, No Partitioning Needed. May 2008  
<https://lifehacker.com/install-ubuntu-on-a-windows-netbook-no-partitioning-ne-5542387>
- PCWorld** - The Ubuntu guide for displaced Windows users. March 2013  
<https://www.pcworld.com/article/2030132/the-ubuntu-guide-for-displaced-windows-users.html>