

Education

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| Ph.D. , Computer Science | Stanford University | GPA: 4.0/4.0 | 2019 |
| B.S. and M.Eng. , 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 LLM post-training (Gemini), generating synthetic datasets and evaluations for improving machine translation. Published work on [inference-time techniques for improving LLM translation quality](#), [automatic evaluation metrics](#), [evaluation datasets](#), [low-resource language translation](#), and [using LLMs for health 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 ([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.

Journal and Conference Papers

Geza Kovacs, Daniel Deutsch, Markus Freitag. "[Mitigating Metric Bias in Minimum Bayes Risk Decoding](#)." *Proceedings of the Ninth Conference on Machine Translation (WMT)*. 2024.

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** in 2 categories: Best New Task and Best New Resource.

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%.

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%.

Workshop and Demo Papers

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*.

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

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| Best Presentation Award, AMTA 2022 | 2022 |
| Best Paper Award (Best New Task), NAACL 2022 | 2022 |
| Best Paper Award (Best New Resource), NAACL 2022 | 2022 |
| Outstanding Paper Award (contribution to special theme on human-centered NLP), 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 st place, ACM UIST (User Interface Software and Technology) Student Innovation Contest | 2012 |
| 1 st 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

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| 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

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| 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

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| 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.

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/20190311/20190311A0B8RU.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
- 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>