

NAACL 2022

**The 2022 Conference of the North American Chapter of the
Association for Computational Linguistics: Human Language
Technologies**

Proceedings of the Conference

July 10-15, 2022

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ISBN 978-1-955917-71-1

Message from the General Chair

Welcome to the 2022 meeting of the North American Association for Computational Linguistics! Due to the COVID-19 pandemic, NAACL-2021 was held virtually, and NAACL-2022 is the first major NLP conference that is run as a hybrid conference in North America. It is my pleasure to welcome many of you who are joining us in Seattle, as well as those who chose to participate in the conference virtually.

COVID safety is important to us and we will do whatever we can to help you enjoy the in-person conference despite the difficulties we all experience coming back to normality. At the same time, thanks to the virtual conference platform put together by Underline, we hope that our virtual attendees will experience the conference almost as if they are in Seattle and enjoy the conference.

NAACL-2022 decided, along with ACL-2022, to experiment with a new reviewing process, based on “rolling review” (ARR). While we believe that, eventually, this process will converge to an efficient review process that would benefit our community, pioneering such a process is not without difficulties. This would not have been possible without the incredible effort, devotion, thoughtfulness, patience, and many work hours put by our program chairs, Marine Carpuat, Marie-Catherine de Marneffe, and Ivan Vladimir Meza Ruiz, and the help from the ACL-2022 program chairs, Smaranda Muresan, Preslav Nakov, Aline Villavicencio. This process necessitated developing a new software package to support our publication, an effort that was done in collaboration with ACL-2022, and I am thankful to Ryan Cotterell who led this effort.

Among other innovations we installed in NAACL-2022 is a reproducibility track, where we attempted to incentivize authors to release models, code, and other information necessary to reproduce the main results and findings of their papers. We hope that this effort, led by Niranjan Balasubramanian, Jesse Dodge, Annie Louis, Daniel Deutsch and Yash Kumar Lal, will be followed in future conferences. Other initiatives include incorporating a “Responsible NLP Research” checklist into the submission process, a new special theme on “Human-Centered Natural Language Processing”, and many innovative activities led by our very active and thoughtful Diversity and Inclusion Committee, led by Diana Galván, Snigdha Chaturvedi and Yonatan Bisk, with Pranav A and Luciana Benotti as advisors.

Organizing a conference as large as NAACL, especially under the constraints of the times we live in, requires the support of a large number of volunteers who care deeply about our community and are willing to spend a lot of time and effort in this long process. It is an honor to coordinate such a team. I would like to thank the members of the organizing committee for their dedication, creativity, and hard work.

First, it is hard to imagine the amount of thought, care, and time, our program chairs Marine Carpuat, Marie-Catherine de Marneffe, and Ivan Vladimir Meza Ruiz put into all aspects of organizing this conference – resulting in an exciting and high quality scientific program.

Many other volunteers have worked hard to make this conference a success and it would not be possible to name all of them here. I will only list the chairs of the main committees whose dedication, creativity, hard work and lively communication contributed to making NAACL-2022 a successful event:

- The diversity & inclusion committee chaired by Diana Galván, Snigdha Chaturvedi and Yonatan Bisk, with advisors Pranav A and Luciana Benotti.
- The industry track chairs, Rashmi Gangadharaiah, Anastassia Loukina and Bonan Min, and advisors Owen Rambow and Yunyao Li.
- The tutorial chairs, Cecilia Alm, Miguel Ballesteros and Yulia Tsvetkov.
- The demonstration chairs, Hannaneh Hajishirzi, Qiang Ning and Avi Sil.

- The workshop chairs, Dan Goldwasser, Yunyao Li and Ashish Sabharwal.
- The student research workshop chairs, Daphne Ippolito, Liunian Harold Li, Maria Leonor Pacheco and advisors, Danqi Chen and Nianwen Xue.
- The publication chairs, Ryan Cotterell, Danilo Croce and Jordan Zhang.
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- The publicity chairs, Nanyun (Violet) Peng, Emily Sheng, Sameer Singh.
- The virtual infrastructure chairs, Deepak Ramachandran, Martín Villalba, and Rishita Anubhai.
- The website chairs, Ice Pasupat and Vered Shwartz.

Many thanks to Chris Callison-Burch, the ACL Sponsorship Director, for helping the NAACL-2022 Sponsorship chair, Byron Wallace, managing the relations between the sponsors and NAACL-2022.

I am also very grateful to the chairs of previous years' conferences, who were always ready to help and share their experience, and to the members of the ACL and NAACL Executive Committees for their support, feedback and advice.

As usual, special thanks go to Priscilla Rasmussen and to Jennifer Rachford who has stepped into the role of the ACL business manager just in time to help us with NAACL-22. They have been our local organizers and have dealt with all aspects of organizing and managing the conference, from room assignment, to food, to COVID tests.

Finally, I would like to thank all authors, invited speakers and panelists, area chairs and reviewers, the volunteers organizing and chairing sessions, and all attendees, in-person and virtual, for making this a scientifically exciting and socially engaging conference.

Welcome and hope you all enjoy the conference!

Dan Roth
 University of Pennsylvania and AWS AI Labs
 NAACL-2022 General Chair
 June 2022

Message from the Program Chairs

Welcome to the 2022 Annual Conference of the North American Association for Computational Linguistics! For the first time, NAACL-HLT 2022 is a hybrid conference. After two years of exclusively virtual conferences due to the COVID-19 pandemic, we are pleased that attendees and presenters will be able to join us in person in Seattle and from all over the world online for this year’s edition.

Review Process NAACL 2022 invited the submission of long and short papers featuring substantial, original, and unpublished research in all aspects of Computational Linguistics and Natural Language Processing (NLP). Our paper review process was organized in a hierarchical structure similar to recent years. We recruited 62 senior area chairs (SACs) for 26 areas, following the areas defined for NAACL 2022. There were two paths for submitting papers: special theme papers were directly submitted to the NAACL OpenReview site, and other main conference papers were reviewed through a new ACL-wide centralized reviewing process. In coordination with the ACL 2022 organizers, we experimented with the ACL Rolling Review (ARR) introduced as part of an initiative to improve efficiency and turnaround of reviewing for ACL conferences. Within this system, reviewing and acceptance of papers to publication venues was done in a two-step process: (1) centralized rolling review via ARR, where submissions receive reviews and meta-reviews from ARR reviewers and action editors; (2) commitment to a publication venue (e.g., NAACL 2022), so that Senior Area Chairs and Program Chairs make acceptance decisions for a submission using the ARR reviews and meta-reviews. During the first phase of the review process, we served as guest Editors in Chief for the ACL Rolling Review and worked to ensure that all papers submitted received at least three review and one meta-review, while balancing the reviewing load for reviewers and action editors. NAACL SACs acted as guest senior area chairs in the ARR system, by helping monitor review progress and supporting the 408 action editors and 3379 reviewers in their work. While the new reviewing mechanism was not as smooth as one could have hoped for, all papers submitted to ARR received at least three reviews and a meta-review, so that authors could decide to commit it to NAACL 2022 if they wanted to. The ACL Executive Committee, based on feedback from the community, will decide whether the advantages of a centralized rolling review system outweigh the disadvantages, taking into account the fast growth of our research field. Once papers were committed to the NAACL OpenReview site, SACs were in charge of making acceptance recommendation per area, taking into account the submission itself, (meta-)reviews, as well as comments to SACs provided by the authors and ethics reviews when applicable.

In coordination with Jesse Dodge, Anna Rogers, Margot Mieskes, Amanda Stent, and the ACL Ethics Committee, we incorporated a “Responsible NLP Research” checklist into the submission process, designed to encourage best research practices in our field, from an ethics and reproducibility perspective. The ARR Responsible NLP Research checklist is largely based on the NeurIPS 2021 paper checklist, the reproducible data checklist from Rogers, Baldwin, Leins’s paper “Just What do You Think You’re Doing, Dave? A Checklist for Responsible Data Use in NLP”, and the NLP Reproducibility checklist introduced by Dodge, Gururangan, Card, Schwartz and Smith in “Show Your Work: Improved Reporting of Experimental Results”. Authors were asked to follow the ACL code of ethics and to fill the checklist to ensure that best practices are put in place. Reviewers were asked to consult the checklist when deciding whether the paper requires ethics review. Based on input from reviewers and action editors, SACs flagged papers that required an in-depth ethics review, which was handled by a committee of 11 ethics reviewers. The ethics chairs provided guidance and office hours to help SACs decide when ethics review was required. The ethics reviews were integrated in the final acceptance recommendation by SACs and decisions by PCs.

Special Theme We highlighted “Human-Centered Natural Language Processing” as the special theme for the conference. As NLP applications increasingly mediate people’s lives, it is crucial to understand how the design decisions made throughout the NLP research and development lifecycle impact people,

whether there are users, developers, data providers or other stakeholders. For NAACL 2022, we invited submissions that address research questions that meaningfully incorporate stakeholders in the design, development, and evaluation of NLP resources, models and systems. We particularly encouraged submissions that bring together perspectives and methods from NLP and Human-Computer Interaction. Given their interdisciplinary nature, theme papers were reviewed through a dedicated process by reviewers with expertise in NLP and in Human-Computer Interaction. We received 52 submissions to the special theme, of which 14 have been accepted to appear at the conference.

Submission Statistics The ACL Rolling Review received 196 submissions in December and 1897 in January, which were the two submission deadlines between the ACL and NAACL commitment deadlines. Of these 2103 submissions, 56% (1073) were committed to NAACL 2022 for the senior program committee to make an acceptance decision. We accepted a total of 442 papers (358 long papers and 84 short papers), representing 21.96% of papers submitted to ARR in December and January and to the NAACL special theme, and 41.19% of papers committed to NAACL (including the special theme papers). As a reference point, NAACL-HLT 2021 received 1797 submissions and accepted 477 papers, including 350 long and 127 short, for an overall acceptance rate of 26%. From the accepted papers, and based on the nominations from SACs, the best paper committee selected best papers, as well as a small number of outstanding papers with the goal of recognizing diverse types of contributions (including contributions to the special theme on human-centered NLP; innovation in model design, training or evaluation; resource or dataset contribution).

Additionally, 209 submissions (183 long and 26 short) were accepted for publications in the “Findings of ACL: NAACL 2022” (or Findings for short), an online companion publication for papers that are not accepted for publication in the main conference, but nonetheless have been assessed by the program committee as solid work with sufficient substance. A total of 5 accepted Findings papers were withdrawn. Findings paper were given the option to be presented as posters during the main conference: 183 took this opportunity and will be presented either in person or virtually.

NAACL 2022 will also feature 15 papers that were published at Transactions of the Association for Computational Linguistics (TACL) and 3 papers from the journal of Computational Linguistics (CL).

Program Format The conference program was designed to allow for presentation and attendance in person in Seattle and virtually from all over the world. Oral sessions will consist of presentations done either in person or virtually. The Q&A session for each paper will alternate between in-person and online questions, with a volunteer helping monitor the online questions. All oral sessions will be live-streamed and recorded. All main conference posters will be presented with a 5-minute video pitch available online and with a virtual Q&A session, where papers will be grouped by topic to foster discussion. In addition, authors who attend the conference in Seattle will present their poster in person during traditional poster sessions. Finally, asynchronous interaction between authors and attendees will be made possible before, during and after the conference on the Underline platform. We also chose to start the conference early in the morning to overlap with normal waking hours in distant time zones.

The program includes several plenary sessions, which we hope will provide thought-provoking perspectives that will enrich discussions during the conference and beyond. In addition to a session for best paper awards, we are delighted to have keynote talks by Batya Friedman (University of Washington) and Manuel Montes-y-Gómez (National Institute of Astrophysics, Optics and Electronics of Mexico). Dan Roth (University of Pennsylvania and Amazon) will moderate a discussion on the role of linguistics and symbolic representations in NLP, with panelists Chitta Baral (Arizona State University), Emily Bender (University of Washington), Dilek Hakkani-tur (Amazon), and Christopher D. Manning (Stanford University). The industry track, demonstrations track and the student research workshop will have dedicated sessions during the main conference to round up the program, including a plenary panel on careers in NLP organized by the industry track chairs.

Gratitude NAACL would not have been possible without the hard work of many volunteers. We are very grateful to all who contributed to make the conference possible, especially given the ongoing challenges raised by the COVID-19 pandemic.

We would like to start by thanking all the authors who submitted their work to the ACL Rolling Review and NAACL 2022. We could only accept a small fraction of submissions but hope that most papers received valuable feedback.

Next, we would like to thank all members of the Program Committee – who are too numerous to be all named here, but are listed elsewhere in the proceedings:

- The senior area chairs, who were incredibly responsive throughout the reviewing process and patiently helped improve the new reviewing infrastructure.
- ARR action editors and reviewers. Special thanks to those who stepped in at the last minute to serve as emergency reviewers. This was tremendously appreciated!
- The special theme area chair, Jeff Bigham, and all reviewers, with a special note of appreciation for those who contributed their time and expertise even though they do not usually publish in NLP conferences.
- The ethics Chairs, Kai-Wei Chang, Dirk Hovy and Diyi Yang, for designing a process to encourage consistent evaluation of ethical considerations during the review process, and their timely input to ensure the integration of ethics review in acceptance recommendations and decisions.
- The ethics reviewers: Yonatan Bisk, Kevin Bretonnel Cohen, Francien Dechesne, Jack Hessel, Jin-Dong Kim, Anne Lauscher, Dave Lewis, Margot Mieskes, Xanda Schofield, Lyle Ungar, Jingbo Xia.
- The outstanding reviewers and action editors who were nominated by the senior area chairs for writing reviews that were particularly helpful in the decision making process. They are recognized by name later in this volume.

Experimenting with a new reviewing system on the large scale required by NAACL would not have been possible without the following people:

- Amanda Stent and Goran Glavaš, as ARR Editors-in-Chiefs, for their tireless work in support of the ARR December and January cycles.
- Graham Neubig, Dhruv Naik and Nils Dycke, as ARR Tech Team for these two cycles.
- Celeste Martinez Gomez, Melisa Bok, and Nadia L’Bahy, as OpenReview Tech Team.
- Elijah Rippeth for his help coordinating the special theme submissions.

The following committees helped shape the conference in countless ways:

- The best paper committee: Tamar Solorio (Chair), Isabelle Augenstein, Gemma Bel Enguix, Alona Fyshe, Shafiq Joty and Emily Prud’hommeaux who enthusiastically read and recommended papers for awards in a short time frame.
- The diversity & inclusion committee chaired by Diana Galván, Snigdha Chaturvedi and Yonatan Bisk, with advisors Pranav A and Luciana Benotti.
- The industry track chairs, Rashmi Gangadharaiah, Anastassia Loukina and Bonan Min, and advisors Owen Rambow and Yunyao Li.
- The tutorial chairs, Cecilia Alm, Miguel Ballesteros and Yulia Tsvetkov.
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- The virtual infrastructure chairs, Deepak Ramachandran, Martín Villalba, and Rishita Anubhai.
- The website chairs, Ice Pasupat and Vered Shwartz for their exceptional reactivity and thorough checks of the conference schedule.

Finally, we would not have been able to organize this conference without the guidance, advice and cooperation of the following people:

- Damira Mrcic, Jernej Masnec, and Sol Rosenberg from Underline, who have been very prompt at answering all our questions and very helpful in setting up the virtual platform.
- Priscilla Rasmussen and Jenn Rachford who make all the logistics of the conference possible.
- Smaranda Muresan, Preslav Nakov, Aline Villavicencio, the Program co-Chairs of ACL 2022 who shared with us their materials and recent experience, and provided moral support.
- Anna Rumshisky, Thamar Solorio and Luke Zettlemoyer, as previous Program co-Chairs of NAACL, who answered many questions and provided invaluable guidance.
- TACL Editorial Assistant Cindy Robinson, and CL Editor-in-Chief Hwee Tou Ng for coordinating TACL and CL presentations with us.
- And last but not least, our General Chair, Dan Roth, whose guidance and support throughout the process were truly invaluable: his quiet strength, big picture thinking, and respect for all the parties involved were a soothing balm and an inspiration.

We hope you will enjoy the NAACL 2022 conference!

Marie-Catherine de Marneffe, Marine Carpuat and Ivan Vladimir Meza Ruiz
 NAACL 2022 Program Committee Co-Chairs
 June 2022

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Keynote Talk: Shaping Technology with Moral Imagination: Leveraging the Machinery of Value Sensitive Design

Batya Friedman

Information School, University of Washington

Abstract:



Monday, July 11, 2022 - Room: Columbia A/C/D & 302 Beckler - Time: 9:15-10:15

Abstract: Tools and technologies are fundamental to the human condition. They do no less than create and structure the conditions in which we live, express ourselves, enact society, and experience what it means to be human. They are also the result of our moral and technical imaginations. Yet, with our limited view, it is not at all obvious how to design and engineer tools and technology so that they are more likely to support the actions, relationships, institutions, and experiences that human beings care deeply about – a life and society of human flourishing.

Value Sensitive Design (VSD) was developed as an approach to address this challenge from within technical design processes. Drawing on over three decades of work, in this plenary talk I will provide an introduction to value sensitive design foregrounding human values in the technical design process. My remarks will present some of value sensitive design's core theoretical constructs. Along the way, I'll provide some examples of applying value sensitive design to robots for healthcare and to bias in computing systems as well as demonstrate one toolkit—The Envisioning Cards—in the context of a design activity.

As time permits, I will turn to a discussion of structure, scale and time: we act within existing structure in the now, from which futures unfold across time and scale. I will unpack these observations and their implications for artificial intelligence and machine learning technologies. Thinking longer-term and systemically, I will bring forward a range of potential challenges and offer some constructive ways forward. My comments will engage individual lives, society writ large, what it means to be human, the planet and beyond.

Please have scratch paper and a pencil handy for the design activity.

Bio: Batya Friedman is a Professor in the Information School and holds adjunct appointments in the Paul G. Allen School of Computer Science & Engineering, the School of Law, and the Department of Human Centered Design and Engineering at the University of Washington where she co-founded the Value Sensitive Design Lab and the UW Tech Policy Lab. Dr. Friedman pioneered value sensitive design (VSD), an

established approach to account for human values in the design of technical systems. Her work in value sensitive design has resulted in robust theoretical constructs, dozens of innovative methods, and practical toolkits such as the Envisioning Cards. Value sensitive design has been widely adopted nationally and internationally where it has been used in architecture, biomedical health informatics, civil engineering, computer security, energy, global health, human-computer interaction, human-robotic interaction, information management, legal theory, moral philosophy, tech policy, transportation, and urban planning, among others. Additionally, value sensitive design is emerging in higher education, government, and industry as a key approach to address computing ethics and responsible innovation. Today, Dr. Friedman is working on open questions in value sensitive design including multi-lifespan design, and designing for and with non-human stakeholders – questions critical for the wellbeing of human societies and the planet.

Dr. Friedman’s 2019 MIT Press book co-authored with David Hendry, *Value Sensitive Design: Shaping Technology with Moral Imagination*, provides a comprehensive account of value sensitive design. In 2012 Dr. Friedman received the ACM-SIGCHI Social Impact Award and the University Faculty Lecturer award at the University of Washington, in 2019 she was inducted into the CHI Academy, in 2020 she received an honorary doctorate from Delft University of Technology, and in 2021 she was recognized as an ACM Fellow. She is also a stone sculptor and mixed media artist. Dr. Friedman received both her B.A. and Ph.D. from the University of California at Berkeley.

Keynote Talk: NLP in Mexican Spanish: One of many stories

Manuel Montes-y-Gómez

National Institute of Astrophysics, Optics and Electronics (INAOE)

Abstract:



Wednesday, July 13, 2022 - Room: Columbia A/C/D & 302 Beckler - Time: 16:15-17:15

Abstract: Spanish is one of the most widely spoken languages in the world, however, the development of language technologies for it has not been in the same proportion. This is particularly true for some of its Latin American variants, such as the Mexican Spanish. This talk will focus on presenting the development of NLP for Mexican Spanish, emphasizing one of its many research stories related to the analysis of social media content.

This talk will present some data on the languages spoken in Mexico and on the development of the area of Natural Language Processing in our country, and will describe a research project that combined the efforts of several groups: the identification of abusive language in Mexican tweets. The talk will conclude by exposing some calls for collaboration, with the intention of increasing and improving the research in Mexican Spanish as well as in the many indigenous languages spoken in Mexico.

Bio: Manuel Montes-y-Gómez is Full Professor at the National Institute of Astrophysics, Optics and Electronics (INAOE) of Mexico. His research is on automatic text processing. He is author of more than 250 journal and conference papers in the fields of information retrieval, text mining and authorship analysis.

He has been visiting professor at the Polytechnic University of Valencia (Spain), and the University of Alabama (USA). He is also a member of the Mexican Academy of Sciences (AMC), and founding member of the Mexican Academy of Computer Science (AMEXCOMP), the Mexican Association of Natural Language Processing (AMNLP), and of the Language Technology Network of CONACYT. In the context of them, he has been the organizer of the National Workshop on Language Technologies (from 2004 to 2016), the Mexican Workshop on Plagiarism Detection and Authorship Analysis (2016-2020), the Mexican Autumn School on Language Technologies (2015 and 2016), and a shared task on author profiling, aggressiveness analysis and fake news detection in Mexican Spanish at IberLEF (2018-2021).

Panel: “The Place of Linguistics and Symbolic Structures”



Tuesday, July 12, 2022 - Room: Columbia A/C/D & 302 Beckler - Time: 9:15-10:15

The widespread adoption of neural models in NLP research and the fact that NLP applications increasingly mediate people’s lives have prompted many discussions about what productive research directions might look like for our community. Since NAACL is a meeting of a chapter of the Association for Computational Linguistics, we would like to highlight specifically the role that linguistics and symbolic structures can play (or not) in shaping these research directions.

Moderator: Dan Roth, University of Pennsylvania & AWS AI Labs

Bio: Dan Roth is the Eduardo D. Glandt Distinguished Professor at the Department of CIS, UPenn, the NLP Lead at AWS AI, and a Fellow of the AAAS, ACM, AAAI, and ACL. In 2017 Roth received the John McCarthy Award. Roth has published broadly in ML, NLP, KRR, and learning theory, and has given keynote talks and tutorials in all ACL and AAAI major conferences. Roth was the Editor-in-Chief of JAIR until 2017, and the program chair of AAAI’11, ACL’03 and CoNLL’02.

Emily M. Bender, University of Washington

Bio: Emily M. Bender is a Professor of Linguistics at the University of Washington and the Faculty Director of UW’s Professional Master’s in Computational Linguistics. Her research interests include computational semantics, multilingual grammar engineering, the interplay between linguistics and NLP, and societal impacts of language technology. She is the author of two books which present linguistic concepts in a manner accessible to NLP practitioners: *Linguistic Fundamentals for Natural Language Processing: 100 Essentials from Morphology and Syntax* (2013) and *Linguistic Fundamentals for Natural Language Processing II: 100 Essentials from Semantics and Pragmatics* (2019; with Alex Lascarides), as well as the co-author of recent influential papers such as *Climbing towards NLU: On Meaning, Form, and Understanding in the Age of Data* (ACL 2020) and *On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?* (FAccT 2021).

Dilek Hakkani-Tür, Amazon Alexa AI

Bio: Dilek Hakkani-Tür is a senior principal scientist at Amazon Alexa AI, focusing on enabling natural dialogues with machines. Prior to joining Amazon, she was a researcher at Google, Microsoft Research, International Computer Science Institute at UC Berkeley and AT&T Labs-Research. Her research interests include conversational AI, natural language and speech processing, spoken dialogue systems, and machine learning for language processing. She received best paper awards for publications she co-authored on conversational systems from IEEE Signal Processing Society, ISCA and EURASIP. Recently, she served as a program chair for NAACL 2020, the editor-in-chief of IEEE Transactions on Audio, Speech, and Language Processing and an IEEE Distinguished Industry Speaker. She is a fellow of ISCA and IEEE.

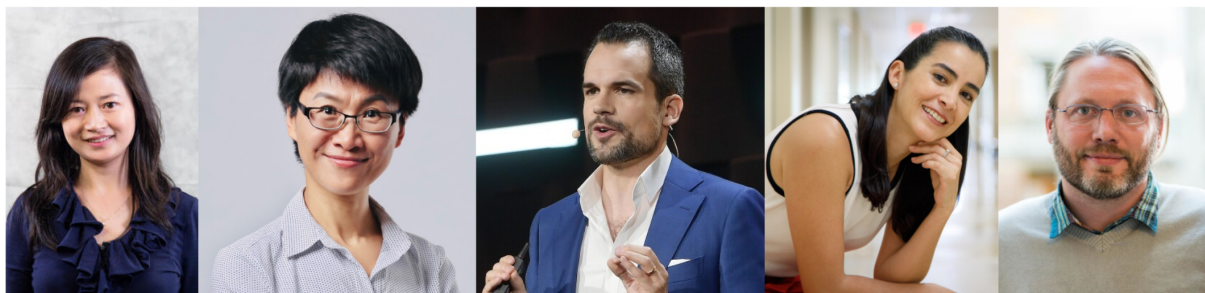
Chitta Baral, Arizona State University

Bio: Chitta Baral is a Professor in the School of Computing and AI at Arizona State University. His research interests include Knowledge Representation and Reasoning (KR & R), Natural Language Understanding (NLU), Image/Video Understanding; and their applications to Molecular Biology, Health Informatics and Robotics. Chitta is the author of the book “Knowledge Representation, Reasoning and Declarative Problem Solving” and a past President of KR Inc. His current research focus is on leveraging decades of research in KR & R for better understanding of natural language and images/videos. Towards that end he has worked on a framework for translating natural language to formal representations (NL2KR); abducing missing knowledge and knowledge hunting; exploring NLU challenges where reasoning with knowledge, reasoning about actions, and commonsense reasoning are crucial; exploring the use of natural language as a knowledge representation and instructional formalism; and exploring the role of reasoning and knowledge in enhancing generalizability, robustness, and few-shot learning.

Christopher D. Manning, Stanford University

Bio: Christopher Manning is a professor of linguistics and computer science at Stanford University, Director of the Stanford Artificial Intelligence Lab (SAIL), and an Associate Director of the Stanford Institute for Human-Centered AI (HAI). He is a leader in applying deep neural networks to natural language processing (NLP), including work on neural machine translation, tree-recursive models, natural language inference, summarization, parsing, question answering, and the GloVe word vectors. Manning founded the Stanford NLP group (@stanfordnlp), teaches and has co-written textbooks for NLP (CS 224N) and information retrieval (CS 276), co-developed Stanford Dependencies and Universal Dependencies, manages development of the Stanford CoreNLP and Stanza software, is the most-cited researcher in NLP, and is an ACM, AAAI, and ACL Fellow and a Past President of ACL.

Panel: “Careers in NLP”



Monday, July 11, 2022 - Room: Columbia A/C/D & 302 Beckler - Time: 13:15-14:15

The Careers in NLP Panel is a standing feature of NAACL Industry Track. The panel is addressed to graduate students and junior researchers as well as their supervisors and mentors, although all NAACL participants are welcomed. The panellists will discuss the diversity of career paths in NLP: from more research-oriented NLP scientist roles to careers in product.

Moderator: Yunyao Li, Apple Knowledge Platform

Bio: Yunyao Li is the Head of Machine Learning, Apple Knowledge Platform, where her team builds the next-generation machine learning solutions to help power features such as Siri and Spotlight. Previously she was a Distinguished Research Staff Member and Senior Research Manager at IBM Research - Almaden. She is particularly known for her work in scalable NLP, enterprise search, and database usability. She has built systems, developed solutions, and delivered core technologies to over 20 IBM products under brands such as Watson, InfoSphere, and Cognos. She has published over 80 articles with multiple awards and a book. She was an IBM Master Inventor, with over 50 patents filed/granted. She is an ACM Distinguished Member. She was a member of the inaugural New Voices program of the US National Academies (1 out of 18 selected nationwide) and represented US young scientists at World Laureates Forum Young Scientists Forum in 2019 (1 of 4 selected nationwide).

Yang Liu, Amazon, Alexa AI

Bio: Yang Liu is currently a principal scientist at Amazon, Alexa AI. Her research interest is in speech and language processing. She received her BS and MS from Tsinghua University, and Ph.D. from Purdue University. Before joining Amazon, she was the head of LAIX Silicon Valley AI lab, a research scientist at Facebook, visiting scientist at Google, a faculty member at the University of Texas at Dallas, and researcher at ICSI in Berkeley. She received NSF CAREER award and Air Force Young Investigator Program award. She is currently a member of the IEEE SLTC committee, a senior area editor for IEEE/ACM Transactions on Audio, Speech and Language Processing, an action editor for TACL. She was one of the program chairs for EMNLP 2020, and has served regularly as an area chair and reviewer in the past NLP conferences. She is a fellow of IEEE and ISCA.

Timo Mertens, Grammarly

Bio: Timo Mertens is the Head of Machine Learning & NLP Products at Grammarly. In his role, he oversees the teams that design and build products that use machine learning and natural language processing. These technologies empower Grammarly to offer a digital writing assistant that helps millions of users write more clearly and effectively every day. Timo has focused on the intersection between machine learning and delivering impactful products throughout his career, spanning academia—with a Ph.D. in Speech Recognition—and industry, where he’s held product leadership positions across Microsoft, Google, and Dropbox.

Thamar Solorio, University of Houston and Bloomberg LP

Bio: Thamar Solorio is a Professor of Computer Science at the University of Houston (UH) and she is also a visiting scientist at Bloomberg LP. She holds graduate degrees in Computer Science from the Instituto Nacional de Astrofísica, Óptica y Electrónica, in Puebla, Mexico. Her research interests include information extraction from social media data, enabling technology for code-switched data, stylistic modelling of text, and more recently multimodal approaches for online content understanding. She is the director and founder of the Research in Text Understanding and Language Analysis Lab at UH. She is the recipient of an NSF CAREER award for her work on authorship attribution, and recipient of the 2014 Emerging Leader ABIE Award in Honor of Denice Denton. She is currently serving a second term as an elected board member of the North American Chapter of the Association of Computational Linguistics.

Luke Zettlemoyer, University of Washington and Meta

Bio: Luke Zettlemoyer is a Professor in the Paul G. Allen School of Computer Science & Engineering at the University of Washington, and a Research Scientist at Meta. His research focuses on empirical methods for natural language semantics, and involves designing machine learning algorithms, introducing new tasks and datasets, and, most recently, studying how to best develop self-supervision signals for pre-training. His honors include being named an ACL Fellow as well as winning a PECASE award, an Allen Distinguished Investigator award, and multiple best paper awards.

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