Shikib Mehri

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EDUCATION

Ph.D. Language Technologies, August 2018 - Present
Carnegie Mellon University, Pittsburgh, PA

- Awarded a M.S. Language Technologies in August 2020.
- A member of the Dialog Research Center, supervised by Dr. Maxine Eskenazi.
- Selected coursework:
  - Sequence-to-Sequence Networks, Machine Learning (PhD), Neural Networks for NLP, Computational Semantics, Multimodal Machine Learning
- 4.0 GPA

B.Sc. Honours Computer Science, September 2013 - May 2018
University of British Columbia, Vancouver, BC

- Cumulative average in Computer Science courses: 91.1%
- Selected coursework:
  - Machine Learning and Data Mining, Intelligent Systems, Advanced Algorithms Design and Analysis, Computer Vision

Early Entrance to University, September 2011 - June 2013
University Transition Program, Vancouver, BC

- Completed five years of high school in two years as one of 20 students to attend this rigorous, highly-accelerated program.
- Graduated high school and subsequently entered university at the age of 15.

PUBLICATIONS

- **Shikib Mehri**, Mihail Eric, Dilek Hakkani-Tur. *Example-Driven Intent Prediction with Observers.* NAACL 2021.
- **Shikib Mehri**, Yulan Feng, Carla Gordon, Seyed Hossein Alavi, David Traum, Maxine Eskenazi. *Interactive Evaluation of Dialog Track at DSTC9.* AAAI 2021.
- Many authors. *Overview of the Ninth Dialog System Technology Challenge: DSTC9.* ArXiv 2020.
- **Shikib Mehri**, Mihail Eric, Dilek Hakkani-Tur. *DialoGLUE: A Natural Language Understanding Benchmark for Task-Oriented Dialogue.* ArXiv 2020.
- Johannes EM Mosig, **Shikib Mehri**, Thomas Kober. *STAR: A Schema-Guided Dialog Dataset for Transfer Learning.* ArXiv 2020.
- Muhammad A. Shah, **Shikib Mehri**, Tejas Srinivasan. *Reasoning Over History: Context Aware Visual Dialog.* NLP Beyond Text Workshop, EMNLP 2020.

- **Shikib Mehri**, Maxine Eskenazi. *Unsupervised Evaluation of Interactive Dialog with DialoGPT.* SIGdial 2020.
- **Shikib Mehri**, Maxine Eskenazi. *USR: An Unsupervised and Reference Free Evaluation Metric for Dialog Generation.* ACL 2020.
- Yulan Feng, **Shikib Mehri**, Maxine Eskenazi, Tiancheng Zhao. *'None of the Above': Measure Uncertainty in Dialog Response Retrieval.*, ACL 2020.
- **Shikib Mehri**, Maxine Eskenazi. *Multi-Granularity Representations of Dialog.* EMNLP 2019.
- **Shikib Mehri**, Tejas Srinivasan, Maxine Eskenazi. *Structured Fusion Networks for Dialog.* SIGdial 2019. (**Best Paper**)
- Prakhar Gupta, **Shikib Mehri**, Tiancheng Zhao, Amy Pavel, Maxine Eskenazi, Jeffrey P Bigham. *Investigating Evaluation of Open-Domain Dialogue Systems With Human Generated Multiple References.* SIGdial 2019.
- **Shikib Mehri**, Alan W Black, Maxine Eskenazi. *CMU GetGoing: An Understandable and Memorable Dialog System for Seniors.* DiGO 2019.
- **Shikib Mehri**, Evgeniia Razumovskaia, Tiancheng Zhao, Maxine Eskenazi. *Pretraining Methods for Dialog Context Representation Learning.* ACL 2019.
- **Shikib Mehri**, Leonid Sigal. *Middle-Out Decoding.* NeurIPS 2018.
- **Shikib Mehri**, Giuseppe Carenini. *Chat Disentanglement: Identifying Semantic Reply Relationships with Random Forests and Recurrent Neural Networks.* IJCNLP 2017.

INDUSTRY EXPERIENCE

Applied Scientist Intern May 2020 - August 2020
Alexa Conversational AI, Amazon Lab126 (Sunnyvale, CA)
Supervisors: Mihail Eric and Dilek Hakkani-Tur

- As a scientist intern within Alexa AI, I conducted research in conversational language understanding.
- Achieves state-of-the-art results on several intent prediction datasets, with strong performance gains in few-shot settings.
- Wrote two papers (one accepted to NAACL): (1) Introducing ConvBERT and the DialoGLUE benchmark and (2) demonstrating strong performance gains on intent prediction with Example-Driven training and Observers.

Applied Scientist Intern May 2018 - August 2018
Alexa Conversational AI, Amazon Lab126 (Sunnyvale, CA)

- As a scientist intern within Alexa AI, I was responsible for doing research into contextual speech recognition.
- Developed novel methods that showed significant quantitative and qualitative improvements over a strong baseline.

Research Assistant August 2016 - May 2018
Wasserman Lab, Centre for Molecular Medicine and Therapeutics
Supervisors: Prof. Wyeth Wasserman, Alice Kaye

- Worked as a bioinformatics research assistant in the Wasserman Lab, on the development of novel algorithms for DNA sequence alignment on a graph based representation of a genome.
- Implemented complex bioinformatics algorithms to run efficiently on consumer-grade hardware.

Machine Learning Consultant June 2017 - July 2018
Vancouver, BC

- Performed consulting and freelancing services for numerous projects in the realm of deep learning and natural language processing.
- Advised numerous international customers on applications of machine learning and natural language processing for their business needs.
- Implemented custom deep learning solutions for applications such as stock price prediction and information extraction.
- In the process of developing various deep learning approaches for image segmentation and classification.

Data Scientist Intern June 2017 - September 2017
Microsoft (Redmond, WA)

- Worked on the Windows Feedback Analysis team, part of the Windows Core Data organization.
- Designed and implemented a deep learning based semantic similarity model for the purposes of feedback clustering.
- Implemented an LSTM sequence-to-sequence architecture for the purposes of the abstractive summarization of feedback text. The architecture was shown to be extremely effective through qualitative analysis.
- Developed a generic and re-usable framework for applying state of the art deep learning strategies to language understanding problems. I applied the framework to the problem of classifying customer feedback into feedback-types (e.g., suggestion, problem, complaint) and outperformed existing methods.

Software Engineering Intern January 2017 - March 2017
Facebook (Menlo Park, CA)

- Worked on the Translation team, part of the Applied Machine Learning organization.
- Responsible for the development of numerous subword Neural Machine Translation models. I implemented various algorithms for learning language-specific subword vocabularies, segmenting an input into subwords and reconstructing an output from subword units.
- Ultimately, improved the quality of translations on Facebook by 2+ BLEU for certain language directions.

Co-Founder and Chief Technology Officer October 2015 - July 2017
IntelliMed (Vancouver, BC)

- Co-founded a startup to utilize technology to improve various pharmacy workflows, obtaining funding at a $750,000 valuation.
- I led developers in building an application which fully automates the process of writing pharmacy medication reviews for patients.

Software Engineering Intern May 2016 - July 2016
Facebook (Menlo Park, CA)

- Worked on the Ads Targeting Modeling team developing algorithms to generate and evaluate user-interest mappings given data on user-page interactions.
- Constructed an incredibly accurate classification model to predict the appropriate categorization of a given interest.

Software Engineering Intern September 2015 - December 2015
Arista Networks (Vancouver, BC)

- Implemented functionality to detect incorrectly configured network switches.
- Developed strategies to change assignment strategies for linerate capable ports in order to decrease downtime.

TEACHING

Research Mentoring January 2020 - *Present*
Language Technologies Institute, CMU

- Mentored multiple undergraduate students (NSF REUs).
- Guided five different students through term-long research projects.

Graduate Teaching Assistant August 2020 - December 2020
Language Technologies Institute, CMU

- Teaching assistant for 11-777: Multimodal Machine Learning.
- Graded assignments, answered student questions.
- Mentored five project groups and guided them through a multimodal research project.

Graduate Course Teaching Assistant January 2018 - April 2018
Computer Science Department, UBC

- Appointed as a teaching assistant for CPSC 532L: Multimodal Learning with Vision, Language and Sound.
- Helped design/develop assignments. Assisted students during office hours.
- One of very few undergraduate students to have ever been appointed as a TA for a graduate course.

Technical Interview Workshop Facilitator May 2017 - January 2018
Computer Science Co-op Office & ECESS Student Society

- Ran numerous technical interview workshops for the Computer Science Co-op program and the Electrical and Computer Engineering Science student society teaching students strategies for solving algorithmic problems in an interactive learning environment.

Teaching Assistant September 2014 - December 2016
Computer Science Department, UBC

- I have worked as an undergraduate teaching assistant for 6 terms for the following courses: Relational Databases (CPSC 304), Operating Systems (CPSC 313), Computer Systems (CPSC 213) and Introductory Programming (CPSC 110).
- My responsibilities include lecturing sections ranging from 15 - 40 students, holding office hours, invigilating exams and grading course materials.

INVITED TALKS

Ohio State University: *Open-Domain Dialog Evaluation*
RASA Summit: *STAR: A Schema-Guided Dialog Dataset for Transfer Learning*
RASA L3-AI: *Open-Domain Dialog Evaluation*

SERVICE

Reviewer - ACL 2021
Reviewer - NAACL 2021
Organizer/Reviewer - DSTC9 2020
Reviewer - EACL 2020 **(Outstanding Reviewer)**
Organizer - YRRSDS 2020
Reviewer - ACL 2020 **(Outstanding Reviewer)**
Sub-reviewer ECIR 2020

ACADEMIC AWARDS

SIGdial Best Paper Award (2019)
CRA Outstanding Undergraduate Researcher Award Finalist (2018)
Trek Excellence Scholarship for Continuing Students (2017)
Charles and Jane Banks Scholarship (2017)
Science Scholar Distinction (2017)
Dean's Honors List (2014 - 2017)
British Columbia Achievement Scholarship (2014)
Chancellor's Scholar Award (2013)
Canucks Education Scholarship (2013)

COMPETITIVE AWARDS

2nd Place, Startup Weekend (Vancouver) (2018)
1st Place, Startup Weekend Crowd Favourite (Vancouver) (2018)
1st Place, NWHacks Best Use of AI (2018)
3rd Place, Lumohacks – Mental Health Hackathon (2017)
Finalist, DataSense Salary Prediction Competition (2017)
1st Place, Telus/IEEE Datathon (2016)
2nd Place, Microsoft Machine Learning Competition (2016)
3rd Place, ACM-ICPC Division II PacNW Regionals (2016)
1st Place, DubHacks RapidAPI Sponsor Prize (2016)
6th Place, Microsoft College Code Competition (2016)
4th Place, DataSense VanData Competition (2015)