

Hang Jiang

MACHINE LEARNING · NATURAL LANGUAGE PROCESSING · SOFTWARE ENGINEERING · AI FOR SOCIAL GOOD

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Education

Massachusetts Institute of Technology

M.S./PH.D IN ARTIFICIAL INTELLIGENCE, MIT MEDIA LAB

Cambridge, Massachusetts

Sept. 2020 - Present

- *Research Assistant* at Lab for Social Machines, MIT Media Lab, supervised by Prof. Deb Roy

Stanford University

M.S. IN SYMBOLIC SYSTEMS, FOCUS ON AI AND NLP. GPA: 4.04/4.00

Palo Alto, California

Sept. 2018 - Exp. Jun. 2020

- *Research Assistant*: Stanford NLP Group (Christopher Manning), Stanford LangCog Lab (Michael Frank), Stanford ML Group (Andrew Ng)
- *Teaching Assistant*: CS 145: Data Management and Data Systems (Shiva Shivakumar), CS 224N: Natural Language Processing in Deep Learning (Christopher Manning), and CS 384: Ethical and Social Issues in Natural Language Processing (Dan Jurafsky)
- Won the best poster award for the CS224N default project division (1 out of 98 teams) as **ranked #1** on the leaderboard [[report](#), [poster](#)]

Emory University

B.S. IN COMPUTER SCIENCE AND B.A IN LINGUISTICS. **SUMMA CUM LAUDE**

Atlanta, Georgia

Aug. 2014 - May. 2018

- *Research Assistant*: Emory NLP Lab (Jinho D. Choi) and Emory PC-ACE Lab (Roberto Franzosi); Thesis won the highest honors

Experience

IBM Research, Scalable Knowledge Intelligence

RESEARCH INTERN. Supervisor: Lucian Popa, Yunyao Li

San Jose, CA

Jun. 2020 - Aug. 2020

- Designed and implemented a neural-symbolic learning framework for entity linking based on Logical Neural Networks
- Showed self-explaining characteristics and outperformed the state-of-art baseline models; working on a submission to ACL

Apple Inc., NLP Technologies Team

MACHINE LEARNING ENGINEERING INTERN. Supervisor: Bing Zhao, Vivek Kumar Rangarajan Sridhar

Cupertino, CA

Jun. 2019 - Sept. 2019

- Built email summarization models (*Seq2Seq w/ Attention*, *Pointer Generator Network*, *BERTSUM*) and created an IOS app demo
- Contributed to Montreal, the internal Natural Language Framework that supports Core ML Framework for model inference on device

Educational Testing Service (ETS), Speech and NLP Team

NATURAL LANGUAGE PROCESSING (NLP) INTERN. Supervisors: Martin Chodorow, Nitin Madnani, Aoife Cahill

Princeton, NJ

Jun. 2018 - Aug. 2018

- Built a new automatic *Grammar Error Detection* system, including preposition error detection and native language identification
- Improved recall rate by **10%** and assisted ETS grading engine E-rater in grading GRE and TOEFL essays (*Tensorflow*, *Python*, *SKLL*, *NLTK*)

Carnegie Mellon University, Language Technologies Institute (LTI)

SUMMER RESEARCH INTERN. Supervisor: Brian MacWhinney

Pittsburgh, PA

Jun. 2017 - Aug. 2017

- Developed an intelligent English tutor *Funetics* in *Nodejs*, *Express*, *MongoDB* and *jQuery* to grade speech and provide customized feedback
- Built and optimized automatic speech recognition (ASR) models based on *Bidirectional LSTM* to analyze selected speech from AphasiaBank

Publications

- Yuhao Zhang; **Hang Jiang**; Yasuhide Miura; Christopher D. Manning; and Curtis P. Langlotz. 2021. Contrastive Learning of Medical Visual Representations from Paired Images and Text. *International Conference on Learning Representations (ICLR)*. [Under Review](#). [[paper](#)]
- Zhou, Sharon; Jiequan Zhang; **Hang Jiang**; Torbjörn Lundh; and Andrew Ng. 2020. Data Augmentation with Mobius Transformations. *Machine Learning: Science and Technology (MLST) 2020*. [Under Review](#). [[paper](#)]
- **Jiang, Hang**; Michael C. Frank; Vivek Kulkarni; and Abdellah Fourtassi. 2020. Exploring Patterns of Stability and Change in Caregivers' Word Usage Across Early Childhood. *Cognitive Science*. [Under Review](#). [[paper](#), [code](#)]
- **Jiang, Hang**; Xianzhe Zhang; and Jinho D. Choi. 2020. Automatic Text-based Personality Recognition on Monologues and Multiparty Dialogues Using Attentive Networks and Contextual Embeddings. In *Proceedings of the 34th AAAI Conference on Artificial Intelligence: Student Abstract and Poster Program, of AAAI:SAP'20*. New York, USA. [Spotlight Presentation](#). [[paper](#), [github](#), [data](#)]
- **Jiang, Hang***; Hao Shen Hong*; Yuxing Chen*; and Vivek Kulkarni. 2019. DialectGram: Automatic Detection of Dialectal Changes with Multi-geographic Resolution Analysis. In *Proceedings of the Society for Computation in Linguistics*. New Orleans: Linguistic Society of America. [Oral Presentation](#). [[paper](#), [github](#), [data](#)] (* = Equal Contribution)

Skills

Programming	Python, Java, C/C++, JavaScript, SQL, R, LaTeX, HTML, CSS, M68000 Assembly
Tools & Framework	PyTorch, Keras, Tensorflow, Scikit-Learn, Android, React, Git
Certificates	Natural Language Processing Nanodegree (Udacity), Deep Learning Specialization (Coursera)