

Mihail Eric

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Education

Stanford University

BS/MS in Computer Science, Concentration: Artificial Intelligence

2012-2017

Stanford, CA

Phillips Exeter Academy

Top 5% in Graduating Class

2008-2012

Exeter, NH

Selected Coursework: *Principles of Artificial Intelligence, Machine Learning, Mining Massive Datasets, Information Network Analysis, Natural Language Processing, Natural Language Understanding, Deep Learning for Natural Language Processing, Deep Learning for Computer Vision, Probabilistic Graphical Models, Parallel Computing, Compilers, Networking*

Work Experience

Confetti AI

Cofounder

2020-Present

Sunnyvale, CA

- Built educational resource platform for helping people jumpstart careers in data science and machine learning.
- Lead developer of educational materials including the largest collection of machine learning practice questions.
- Used by students at top institutions including Harvard, Berkeley, MIT, CMU, JHU, and Stanford.
- 10,000+ monthly active users.

Amazon Alexa AI

Machine Learning Scientist

2019-Present

Sunnyvale, CA

- Founding member of Conversational Modeling Team which tackles all problems in dialogue systems.
- Built state-of-the-art machine learning models in natural language understanding, generation, and IR.
- Scaled training jobs from single CPU to 64+ GPUs, 2000 datapoints to 700M+ datapoints.
- Published at leading artificial intelligence conferences including AAAI, NeurIPS, SIGDial, LREC, INLG.
- Lead maintainer of codebase used by 15+ scientists and engineers.
- Organizer of Alexa AI Deep Learning blog with 1500+ subscribers.
- Managed 4 PhD research interns.

Mobile Development

Independent Developer

2018-2019

San Francisco, CA

- Developed iOS and Android apps for teaching artificial intelligence principles.
- App Store: <https://itunes.apple.com/us/app/artificial-intelligence-school/id1369987569?mt=8>
- Google Play: <https://play.google.com/store/apps/details?id=com.theaischool>
- 3000+ unique downloads.

RideOS

Backend Engineer

2017-2019

San Francisco, CA

- 8th engineering hire at Sequoia Capital-backed autonomous vehicle technology company.
- Built map-matching services used to power our core routing engine.
- Developed key infrastructure for continuously testing the health of our services, helping to maintain uptime of the cluster.
- Created dispatch services that power our human and AV fleet-planner offerings.
- Built benchmarking tools for monitoring latency and throughput of routing algorithms and dispatch services.

Stanford Natural Language Processing Group

Researcher

2014-2017

Palo Alto, CA

- Lead on project for developing noise-robust task-oriented dialogue agents, in collaboration with the Ford Research and Innovation Center.
- Built a novel corpus of 3000+ dialogues in three distinct domains in the in-car virtual assistant domain. Dataset is publicly available on the Stanford NLP research blog.
- Developed state-of-the-art neural network task-oriented dialogue architectures presented at EACL, ACL, and SIGDial.

Stanford Computer Science

Graduate Teaching Assistant

2015-2016

Palo Alto, CA

- Assistant for Natural Language Processing and Introduction to Probability for Computer Scientists courses.
- Led weekly course material study groups and midterm review sessions, graded assignments and exams.

Numenta

Algorithms Intern

2015 Summer

Redwood City, CA

- Developed infrastructure for particle swarming optimization library and built NLP classifiers using hierarchical temporal memory technology.
- Contributed to NuPIC, Numenta's open-source cognitive computing platform.

Bloomberg Labs

Software Engineering Intern

- Built infrastructure for named-entity-recognition component of Bloomberg's open-source C++ natural language processing framework, NLP <GO>.

2014 Summer
New York City, NY

Stanford Computer Science

Section Leader (SL)

- SL for Stanford's Intro CS core classes: Programming Methodology and Programming Abstractions.
- Taught weekly sections on course material and midterm review sessions. Graded assignments and exams.

2014
Palo Alto, CA

Publications

Example-Driven Intent Prediction With Observers

Shikib Mehri, [Mihail Eric](#), Dilek Hakkani-Tur

2020
arXiv:2010.08684

DialoGLUE: A Natural Language Understanding Benchmark...

Shikib Mehri, [Mihail Eric](#), Dilek Hakkani-Tur

2020
arXiv:2009.13570

Beyond Domain APIs: Task-Oriented Conversational Modeling...

Seokhwan Kim, [Mihail Eric](#), Karthik Gopalakrishnan, ...

Oral, *SIGDial 2020*
arXiv:2006.03533

Policy-Driven Neural Response Generation for ...

Behnam Hadayatnia, ..., [Mihail Eric](#), Dilek Hakkani-Tur

INLG 2020
arXiv:2005.12529

Just Ask: An Interactive Learning Framework ...

Ta-Chung Chi, [Mihail Eric](#), Seokhwan Kim, Minmin Shen, Dilek Hakkani-Tur

AAAI 2020
arXiv:1912.00915

MultiWOZ 2.1: Multi-Domain Dialogue State Corrections ...

[Mihail Eric](#)*, Rahul Goel*, Shachi Paul, ..., Dilek Hakkani-Tur

LREC 2020
arXiv:1907.01669

Key-Value Retrieval Networks For Task-Oriented Dialogue

[Mihail Eric](#), Lakshmi Krishnan, Francois Charette, Christopher D. Manning

Oral, *SIGDial 2017*
arXiv:1705.05414

A Copy-Augmented Sequence-to-Sequence Architecture ... Task-Oriented Dialogue

[Mihail Eric](#), Christopher D. Manning

Oral, *EACL 2017*
arXiv:1701.04024

The Pragmatics of Indirect Commands in Collaborative Discourse

Matt Lamm* and [Mihail Eric](#)*

IWCS 2017
arXiv:1705.03454

Learning Symmetric Collaborative Dialogue Agents with Knowledge Graph Embeddings

He He, Anusha Balakrishnan, [Mihail Eric](#), Percy Liang

ACL 2017
arXiv:1704.07130

SceneSeer: 3D Scene Design with Natural Language

Angel X. Chang, [Mihail Eric](#), Manolis Savva, Christopher D. Manning

Preprint 2017
arXiv:1703.00050

Skills

Languages: Python, Java, HTML, CSS, Javascript, Bash, C/C++, MATLAB

Technologies: AWS, React, gRPC, Elasticsearch, Kubernetes, Docker, Bazel, Node, Azure, Google Cloud Platform

Machine Learning Frameworks: PyTorch, Scikit-learn, Tensorflow, Keras

Professional Service

Organizer: NLP4ConvAI Workshop @ACL 2020

Reviewer: ACL (Top Reviewer 2018), EMNLP, ICLR, NeurIPS, DSTC

Press

VentureBeat: <https://venturebeat.com/2019/12/04/amazon-proposes-a-home-robot-that-asks-you-questions-when-its-confused/>

Amazon Blog: <https://www.amazon.science/blog/amazon-launches-online-challenge-to-spur-research-on-generalizing-dialogue-agents>