

Avner May

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EDUCATION

Stanford University
Postdoctoral Scholar
Advisor: Christopher Ré

Stanford, CA
Jan. 2018 - July 2020

Columbia University
MS/PhD in Computer Science
GPA: 4.07/4.00
Advisor: Michael Collins

New York, NY
Sept. 2011 - Dec. 2017

Honors: Recipient of the Department Chair's Distinguished Fellowship
Teaching: Course Assistant for "Computer Networks", and "Challenges in Cloud and Mobile Computing"
Relevant Courses: Machine Learning, Adv. Machine Learning, Statistical Inference, Foundations of Graphical Models.

Harvard University
Bachelor of Arts in Mathematics, Secondary Field Computer Science
GPA: 3.60/4.00

Cambridge, MA
June 2009

Honors: Certificate of Distinction in Teaching (Spring 2008).
Teaching: Course Assistant for Multivariable Calculus
Relevant Courses: Intro. to CS I/II, Theory of Computation, Data Structures & Algorithms, Efficient Algorithms, Probability Theory.

Charles E. Smith Jewish Day School
GPA: 4.54/4.00 (highest in graduating class)

Rockville, MD
Feb. 2005

PUBLICATIONS

Contextual Embeddings: When are they worth it?
S. Arora*, **A. May***, J. Zhang, C. Ré. ACL 2020.

Understanding the Downstream Instability of Word Embeddings.
M. Leszczynski, **A. May**, J. Zhang, S. Wu, C. Aberger, C. Ré. MLSys 2020.

On the Downstream Performance of Compressed Word Embeddings.
A. May, J. Zhang, T. Dao, C. Ré. NeurIPS 2019 (Spotlight, 3% acceptance).

Low-Precision Random Fourier Features for Memory Constrained Kernel Approximation.
J. Zhang*, **A. May***, T. Dao, C. Ré. AISTATS 2019.

Kernel Approximation Methods for Speech Recognition.
A. May, A.B. Garakani, Z. Lu, D. Guo, K. Liu, A. Bellet, L. Fan, M. Collins, D. Hsu, B. Kingsbury, M. Picheny, F. Sha. JMLR 2019.

Compact Kernel Models for Acoustic Modeling via Random Feature Selection.
A. May, M. Collins, D. Hsu, B. Kingsbury. ICASSP 2016.

A Comparison Between Deep Neural Nets and Kernel Acoustic Models for Speech Recognition.
Z. Lu, D. Guo, A.B. Garakani, K. Liu, **A. May**, A. Bellet, L. Fan, M. Collins, B. Kingsbury, M. Picheny, F. Sha. ICASSP 2016.

Filter & follow: How social media foster content curation.
A. May, A. Chaintreau, N. Korula, S. Lattanzi. SIGMETRICS 2014.

WORK EXPERIENCE

Google Speech Recognition Group

Research Scientist

I am a member of the audio-visual speech recognition group, working on research to better transcribe and summarize video meetings.

New York, NY

Oct. 2020 -

Google Research – Large Scale Machine Learning Research Group

Research Intern

Worked on model compression, a research area which attempts to train more compact models in the case where larger more powerful models already exist. Performed experiments using Torch.

New York, NY

Summer 2015

Microsoft Research – Speech and Dialogue Research Group

Research Intern

Worked on training acoustic models from the raw speech signal. Specifically, was interested in seeing whether it was possible to train the matrices which perform the Fourier transform and mel-binning, as part of the classical MFCC feature extraction pipeline. Performed extensive experiments with, and made large improvements to, the Computational Network Toolkit (CNTK), an open-source C++ machine learning toolkit developed by MSR.

Redmond, WA

Summer 2014

Microsoft Corporation – Windows Communication Foundation (WCF)

Software Development Engineer

Developer on the Messaging Framework Team. Designed and implemented features to facilitate the development of distributed applications.

Honors: Received “Gold Star Bonus Award” for contributions to team.

Redmond, WA

Aug. 2009 - July 2011

Microsoft Corporation – Windows Workflow Foundation (WF)

Software Development Engineer Intern

Designed and implemented program for validating Windows Workflow programs. Integrated it with Microsoft Visual Studio.

Redmond, WA

Summer 2008

Harvard University – Mathematics Department

Course Assistant for Math 23b: Linear Algebra and Real Analysis II

Led weekly review of material covered in class. Held weekly office hours.

Honors: Awarded “Certificate of Distinction in Teaching” based on student evaluations.

Cambridge, MA

Spring 2008

University of Maryland – Granular Physics Lab

Research Assistant

Conducted research in granular physics with Professor Wolfgang Losert. Studied the propagation of avalanches in excitable media using the tools of image processing. Programmed extensively in IDL (interactive data language).

College Park, MD

Summer 2007

The Inter-American Development Bank (IDB)

Knowledge Intern

Worked as part of a team in the Development Effectiveness and Strategic Planning Department to revamp IDB’s Project Alert Identification System (PAIS). Created a strategic proposal with recommendations for improving this system.

Washington, DC

Summer 2006

COMMUNITY SERVICE

Reviewer for ICLR 2018, ICML 2017-2020 (2019 Top Reviewer), NeurIPS 2017-2019, ICJAI 2019-2020 (2019 Distinguished PC member), AAAI 2020.

SKILLS

Computer: Python, PyTorch, Matlab, Java, C#, Linux, C, C++, CUDA.

Language: *Spanish:* Native speaker. **Hebrew:** Proficient.