Vinith Misra

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Data science leadership. ML, statistical modeling, and analytics.

Industrial Work History

Senior Data Science Manager, Artwork and Video   **Netflix**
Leading a team of ML / stats scientists and analytics engineers.   *2018 – present*
Text/audio/video ML, statistical methodology within a contextual bandits framework, and analytics to surface insights to hundreds of stakeholders. Primary accomplishment: Growing team members into thought leaders.
Secondary accomplishments: Impact, highlighted in 2019Q2 investor call + 2019Q3 company meeting, and establishment of clear vision + partnerships in a new, highly cross functional area.

Senior Data Scientist, *Netflix* (July 2016 – August 2018): ML, NLP, statistical methodology, optimization, and everything in between.

Research Staff Member, *IBM Watson* (Sep 2014 – June 2016): Knowledge graphs, dialog, and personality analytics. Graph embeddings, link prediction, text classification/generation. Crowdsourcing.

Data science intern. *Drawbridge Inc.* (Feb–Sep 2014): Machine learning algorithms at scale for real-time bidding.

Technical consultant. *HBO's "Silicon Valley"* (Sep 2013 – Present): Technical content, fictional algorithm design, and general technical input. GQ's "Math of the Year" 2014.

Research intern. *IBM Research* (Aug–Sep 2013): Theoretical work, experimentation, and practical implementation involving knowledge graphs and timeseries data.

Assorted internships and consulting. *LTI, ADI, Samplify Systems, et al* (June 2006–April 2013): Signal processing algorithms for cameras, medical ultrasound, and mixed signal circuits.

Education

Stanford University   **Department of Electrical Engineering**
Ph.D., GPA – 3.98, Quals rank – 9/174   *2008–2014*
Thesis "Universal Communication and Clustering." Advisor: Prof. Tsachy Weissman.

MIT   **Department of Electrical Engineering and Computer Science**
S.B. + M.Eng., GPA – 5.0/5.0   *2004–2008*
Thesis "Functional Quantization." Advisor: Prof. Vivek Goyal. David Adler Memorial Thesis Prize.

Academic Service and Dramatic Interests

2015–: Co-founded **Stanford Compression Forum** with assistance of Stanford, IBM, and HBO. Leaders from industry and academia brought together to determine the future of data compression. Second annual meeting in Feb 2016. 🖥 compression.stanford.edu

2008-2013: TA for information theory and signal processing courses at Stanford and MIT.

2008–: Theater and filmmaking. TA in acting for Stanford Arts Intensive, Stanford Continuing Studies, Stanford Drama, and the American Conservatory Theatre. Performances with MIT Dramashop, the Boston Theater Marathon, Stanford Drama, and Naatak. Short film "Faceoff" premiered at the 2012 Palo Alto International Film Festival.

Distinctions (of varying legitimacy)

2016: LinkedIn "Next Wave": Entertainment.

2015: Forbes 30 under 30: Enterprise Technology.

2008–2013: NDSEG and Stanford Graduate Fellowships.

2008: MIT David Adler Memorial Thesis Prize

2015: TED@IBM speaker: "The Algorithms of Humor."

Some relevant publications

2020, AAAI: Simplify-then-Translate: Automatic Preprocessing for Black-Box Translation. Sneha Mehta, Bahareh Azarnoush, Boris Chen, Avneesh Saluja, **Vinith Misra**, Ballav Bihani, Ritwik Kumar

2018, AAAI: Bernoulli Embeddings for Graphs.**Vinith Misra**, Sumit Bhatia

2013, ISIT: Unsupervised Learning and Universal Communciation. **Vinith Misra**, Tsachy Weissman

2012, TransIT: The Porosity of Additive Noise Sequences. **Vinith Misra**, Tsachy Weissman

2011, TransIT: Distributed scalar quantization. **Vinith Misra**, Vivek Goyal, Lav Varshney