ANAND AVATI

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EDUCATION

Stanford University Sept 2015 - Present
PhD (defended), MS (2019) in Computer Science
MS (2019) in Statistics
PhD Minor in Management Science & Engineering *Stanford, CA*

- Advisor: Prof. Andrew Ng.
- Tech lead of the *AI-Enabled Advance Care Planning* project.
- Principal Instructor for CS229 Machine Learning (Summer 2019, 2020).
- Distinction in Teaching.

Sri Jayachamarajendra College of Engineering Sept 2000 - June 2004
BE in Computer Science & Engineering *Mysore, India*

- Awarded "Best Student of the Year" medal.
- Distinguished Alumni Award.

EMPLOYMENT EXPERIENCE

Red Hat, Office of the CTO July 2014 - Sep 2015
Distinguished Engineer (formerly "Consulting Engineer") *Mountain View, CA*

- Strategic focus on storage and analytics.
- Youngest employee to be promoted to the distinguished title.

Red Hat Mar 2012 - July 2014
Senior Principal Software Engineer *Mountain View, CA*

- Technical contributions resulted in direct multi-million dollar revenue impact.

Gluster (acquired by Red Hat) Sept 2005 - Mar 2012
Founding Engineer & Architect *Bengaluru, India*

- Architect and tech lead of the GlusterFS distributed filesystem.

NetDevices (acquired by Alcatel-Lucent) July 2004 - August 2005
Software Engineer *Bengaluru, India*

- Worked on Network Address Translation, Intrusion Detection, System Boot and Live Upgrade.

MEDIA COVERAGE

New York Times	2018.01.03	This Cat Sense Death. What if Computers Could, Too?
The AI Podcast	2018.01.30	Ep. 47: How AI Can Improve Access to Palliative Care
IEEE Spectrum	2018.01.16	Stanford's AI Predicts Death for Better End-of-Life Care
Gizmodo	2018.01.18	New AI System Predicts How Long Patients Will Live With Startling Accuracy
Yahoo!	2018.01.19	Artificial intelligence can tell when you will die with up to 90% accuracy
CNBC	2018.01.24	A.I. used to predict when people may die for better medical care
FastCompany	2018.01.24	This AI Predicts Death. Could It Improve End-Of-Life Care?
Wired	2019.03.13	Will Machines Be Able to Tell When Patients Are About to Die?

INTERNSHIPS / FELLOWSHIPS

Google Sep 2020 - Dec 2020
Research Intern

· BEDS-Bench: Behavior of EHR-models under Distributional Shift - A Benchmark.

Greylock Partners June 2020 - Aug 2020
Greylock X Fellow

· Greylock X Fellow for Summer 2020.

PAPERS

NGBoost: Natural Gradient Boosting for Probabilistic Prediction ICML 2020
Tony Duan,* **Anand Avati***, *Daisy Yi Ding, Sanjay Basu, Andrew Ng, Alejandro Schuler*

· https://stanfordmlgroup.github.io/projects/ngboost/

Countdown Regression: Sharp and Calibrated Survival Predictions UAI 2019
Anand Avati, *Tony Duan, Sharon Zhou, Kenneth Jung, Nigam H. Shah, Andrew Ng*

· https://stanfordmlgroup.github.io/projects/countdown-regression/

CRUDE: Calibrating Regression Uncertainty Distributions Empirically ICML UDL 2020
Eric Zelikman, Christopher Healy, Sharon Zhou, **Anand Avati**

· https://arxiv.org/abs/2005.12496

Short-Term Solar Irradiance Forecasting Using Calibrated Probabilistic Models NeurIPS CCAI 2020
Eric Zelikman, Sharon Zhou*, Jeremy Irvin*, Cooper Raterink, Hao Sheng,* **Anand Avati**, *Jack Kelly, Ram Rajagopal, Andrew Y. Ng, David Gagne*

· https://stanfordmlgroup.github.io/projects/solar/

A framework for making predictive models useful in practice JAMIA 2020
Kenneth Jung, Sehj Kashyap, **Anand Avati**, *Stephanie Harman, Heather Shaw, Ron Li, Margaret Anne Smith, Kim Fai Kenny Shum, Jacob Javitz, Yohan Vetteth, Tina Seto, Steven C Bagley, Nigam H Shah*

· https://academic.oup.com/jamia/advance-article/doi/10.1093/jamia/ocaa318/6045012

Improving Palliative Care with Deep Learning BMC MIDM 2019
Anand Avati, *Kenneth Jung, Stephanie Harman, Lance Downing, Andrew Ng, Nigam H. Shah*

· Best Student Paper Award at IEEE International Conference on Bioinformatics and Biomedicine 2017.
· https://stanfordmlgroup.github.io/projects/improving-palliative-care/

A Model is Not Enough: A Case of AI-Enabled Palliative Care Delivery ICML HSYS 2020
Anand Avati, *Sehj Kashyap, Margaret Smith, Stephanie Harman, Andrew Ng, Kenneth Jung, Nigam Shah, Ron Li*

· https://sites.google.com/view/hsys2020/papers/accepted-papers

Ambulatory Atrial Fibrillation Monitoring Using Wearable Photoplethysmography with Deep Learning KDD 2019
Maxime Voisin, Yichen Shen, Alireza Aliamiri, **Anand Avati**, *Awni Hannun, Andrew Ng*

· https://stanfordmlgroup.github.io/projects/ppg/

Automated and Flexible Identification of Complex Disease: Building a Model for Systemic Lupus Erythematosus Using Noisy Labeling JAMIA 2018
Sara Murray, **Anand Avati**, *Gabriela Schmajuk*, *Jinoos Yazdany*

· https://academic.oup.com/jamia/advance-article/doi/10.1093/jamia/ocy154/5199370

PRE-PRINTS

Neural Language Correction with Character-Based Attention arXiv:1603.09727
Ziang Xie, **Anand Avati**, *Naveen Arivazhagan*, *Dan Jurafsky*, *Andrew Y. Ng*

· https://github.com/stanfordmlgroup/nlc

Improving Hospital Readmission Prediction using Individualized Utility Analysis medRxiv
Michael Ko, *Emma Chen*, *Pranav Rajpurkar*, *Ashwin Agrawal*, **Anand Avati**, *Andrew Ng*, *Sanjay Basu*, *Nigam Shah*

· https://www.medrxiv.org/content/10.1101/2020.07.26.20156943v1

Predicting Inpatient Discharge Prioritization with EHR arXiv:1812.00371
Anand Avati, *Stephen Pfohl*, *Chris Lin*, *Thao Nguyen*, *Meng Zhang*, *Philip Hwang*, *Jessica Wetstone*, *Kenneth Jung*, *Andrew Ng*, *Nigam H. Shah*

· https://arxiv.org/abs/1812.00371

PATENTS (ISSUED)

· 8,874,626 Tracking files and directories related to unsuccessful change operations
· 8,943,031 Granular self-healing of a file in a distributed file system
· 8,983,908 File link migration for decommissioning a storage server
· 9,110,917 Creating a file descriptor independent of an open operation
· 9,317,508 Pro-active self-healing in a distributed file system
· 9,317,509 Pro-active self-healing in a distributed file system (contd.)
· 9,529,817 Pro-active self-healing in a distributed file system (contd.)
· 9,535,925 File link migration
· 9,535,926 Reducing transaction operations using deferred operations
· 9,648,103 Non-Uniform File Access in a Distributed File System
· 9,760,577 Write-Behind Caching in Distributed File Systems
· 9,965,505 Identifying Files in Change Logs Using File Content Location Identifiers
· 9,971,787 Unified File and Object Data Storage
· 9,971,788 Unified File and Object Data Storage (contd.)
· 9,979,783 Distributed Coordinated Snapshots
· 9,986,029 File Replication using File Content Location Identifiers
· 10,025,808 Compacting change logs using file content location identifiers
· 10,120,868 Outcast Index in Distributed File Systems
· 10,146,791 Open File Rebalance
· 10,235,382 Transferring Objects between different Storage devices based on Timestamps
· 10,515,058 Unified file and object data storage (contd.)
· 10,534,753 Caseless file lookup in a distributed file system
· 10,754,825 Path resolver for client access to distributed file systems