# Shalmali Joshi

## Curriculum Vitae

Postdoctoral Fellow
Vector Institute

Past Affiliations:
  IDEA Lab, WNCG

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## Education

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|---|---|---|
| '13- '18 | Ph.D., Electrical & Computer Engg | UT Austin (Advisor: Joydeep Ghosh) |
| '09-'11 | M.S., Electrical & Computer Engg | UC, San Diego |
| '05-'09 | B. Tech., Electrical Engg | Vishveshvaraya Natl. Inst. of Tech., India |

## Research Interests

Interpretability, Fairness and Robustness of Clinical Machine Learning Models

## Scientific products

### Manuscripts - Submitted/ In preparation

1. **Shalmali Joshi**\*, Sana Tonekaboni\*, Melissa McCradden, and Anna Goldenberg. What clinicians want: Contextualizing explainable machine learning for clinical end use. 2019

2. **Shalmali Joshi**, Oluwasanmi Koyejo, Been Kim, and Joydeep Ghosh. **xGEMS:** Generating Exemplars to Explain Black-Box Models. 2018

### Publications - Conference and Journal

1. **Shalmali Joshi**, Rajiv Khanna, and Joydeep Ghosh. Co-regularized monotone regtargeting for semi-supervised LeTOR. In *Siam International Conference on Data Mining (SDM)*, 2018

2. **Shalmali Joshi**, Suriya Gunasekar, David Sontag, and Joydeep Ghosh. Identifiable phenotyping using constrained Non-Negative matrix factorization. In *Machine Learning for Healthcare Conference*, pages 17–41. jmlr.org, 10 December 2016

3. **Shalmali Joshi**, Joydeep Ghosh, Mark Reid, and Oluwasanmi Koyejo. Rényi divergence minimization based co-regularized multiview clustering. *Mach. Learn.*, 104(2-3):411–439, 1 September 2016

4. **Shalmali Joshi**, Oluwasanmi Koyejo, Kristine Resurreccion, and Joydeep Ghosh. Simultaneous prognosis and exploratory analysis of multiple chronic conditions using clinical notes. In *2015 International Conference on Healthcare Informatics*, pages 243–252. ieeexplore.ieee.org, October 2015

*Peer Reviewed Workshop/Abstracts*

5. **Shalmali Joshi**, Been Kim, Oluwasanmi Koyejo, and Joydeep Ghosh. Through the looking GANs. In *Women in Machine Learning Workshop @ NIPS*, 2017

6. **Shalmali Joshi**, Oluwasanmi Koyejo, and Joydeep Ghosh. Simultaneous prognosis of multiple chronic conditions from heterogeneous EHR data. In *2015 International Conference on Healthcare Informatics*, pages 497–497. ieeexplore.ieee.org, October 2015

7. **Shalmali Joshi**, Oluwasanmi Koyejo, and Joydeep Ghosh. Multiview clustering via constrained bayesian inference. In *Workshop on Divergence Methods for Probabilistic Inference @ International Conference on Machine Learning (ICML)*, 2014

*Theses*

8. (In preparation) **Shalmali Joshi**. *Constraint based Approaches to Interpretable and Semi-Supervised Machine Learning*. PhD thesis, The University of Texas at Austin, December 2018

9. **Shalmali Joshi**\*, Aditya Mundle\*, and Aishwarya Parthasarthy\*. *Spike Sorting of Retinal Neural Responses*. B. Tech. thesis, Visvesvaraya National Institute of Technology, India, June 2009

\*Equal Contribution.

## Teaching experience (Teaching Assistant)

| | | |
|---|---|---|
| Fall '15 | Advanced Predictive Modeling | McCombs School of Business, UT Austin |
| Fall '14 | Graduate Data Mining | Electrical & Computer Engg., UT Austin |
| Spring '14 | Graduate Data Mining | Electrical & Computer Engg., UT Austin |

## Work Experience

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|---|---|---|
| Nov '18- | Postdoctoral Fellow | Vector Institute, Toronto, ON, CA |
| Summer '15 | Technical Intern | **Yahoo! Labs**, Sunnyvale, CA, US |
| June '13-June '15 | Software Engineer | **Amazon Lab 126**, Sunnycale, CA, US |
| Summer '10 | HPC Algorithms Intern | **Life Technologies**, Carlsbad, CA, US |

## Awards/Service

*Program Committee*

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|---|---|
| ICLR Workshop, DebugML | 2019 |
| NIPS Workshop, Machine Learning for Health | 2018 |
| NIPS Workshop, Machine Learning for Health | 2017 |

### Reviewer

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|---|---|
| ICML | 2019 |
| WiML@NIPS (Women In Machine Learning) | 2017 |
| MLHC | 2017 |
| NIPS Workshop on Machine Learning for Health | 2016 |
| NIPS | 2015 |
| ICML | 2015 |
| TKDD | 2014 |

### Awards

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| 2017 | WiML@NIPS Travel Award |
| 2015 | IEEE ICHI Travel Award |
| 2003 | National Talent Search Scholarship, Govt. of India |

## Technical Skills

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| Programming/Scripting Languages | Python, C++, C, R, MATLAB, Perl, Bash, XML |
| Libraries, Tools, IDEs | Tensorflow, scikit_learn, numpy, scipy, openCV, vim, STL, Cvx, LibSVM, LaTeX, Qt Creator, RStudio, CUDA API, gcc, gdb |
| Versioning Tools | Git, svn |
| Operating Systems | OSx, Linux |

## References

Available Upon Request