Nalini Singh Curriculum Vitae

Computer Science and Artificial Intelligence Lab
Department of Health Sciences and Technology
Massachusetts Institute of Technology
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Education

Ph.D., Medical Engineering and Medical Physics 2017–Present

Harvard-MIT Division of Health Sciences and Technology; Advisor: Polina Golland

S.B., Electrical Engineering and Computer Science 2013–2017

Massachusetts Institute of Technology

Experience

Google, Inc., Mountain View, CA Summer 2018–Present

Software Engineering Intern/Student Researcher, Google Brain
Developing and quantifying methods that explain neural network predictions on medical image datasets.

Google, Inc., Sunnyvale, CA Summer 2017

Software Engineering Intern, Google Station
Implemented software feature to increase use of public wi-fi at international rail stops; project launched externally at 15 Google Stations in November 2017.

IBM Research, Cambridge, MA Winter 2017

Research Intern, Healthcare Analytics Group
Designed and conducted feature analyses to determine proteins involved in adverse drug reactions.

Nihon Kohden Innovation Center, Cambridge, MA 2016-2017

Research Intern
Developed classifiers for evaluating relevance of bedside alarms in neonatal intensive care units.

Charles Stark Draper Laboratory, Cambridge, MA Summer 2015

Signal Processing, Algorithms, and Software Intern
Developed and implemented computer vision methods for "lost robot" parafoil localization without GPS.

MIT Media Lab, Cambridge, MA 2014-2017

Undergraduate Researcher, Biomechatronics Group
Developed biomimetic prosthesis control systems for walking across varied terrains.

Teaching

6.011: Signals, Systems, and Inference, Cambridge, MA 2017

Teaching Assistant
Taught three weekly tutorial sections; assisted students in office hours and electronically.
Rating: 6.8/7.0

Publications

Journal Publications

Clites, T., Arnold-Rife, A., **Singh, N.**, Kline, E., Chen, H., Tugman, C., Billadeau, B., Biewener, A., and Herr, H. "Goats Decrease Leg Stiffness When Walking Over Compliant Surfaces". *Journal of Experimental Biology* (2019), In press.

Luo, H., Fokoue-Nkoutche, A., **Singh, N.**, Yang, L., Hu, J., and Zhang, P. "Molecular Docking for Prediction and Interpretation of Adverse Drug Reactions". *Combinatorial chemistry & high throughput screening* (2018), 21(5), 314-322.

Conference Publications

Dever, C., Dyer, T., Hamilton, L., Lommel, P., Mohiuddin, S., Reiter, A., **Singh, N.**, Truax, R., Wholey, L., Bergeron, K. and Noetscher, G. "Guided-Airdrop Vision-Based Navigation". *24th AIAA Aerodynamic Decelerator Systems Technology Conference* (2017).

Peer-Reviewed Abstracts

Lala, S. **Singh, N.**, Gagoski, B., Abaci-Turk, E., Grant, P.E., Golland, P., and Adalsteinsson, E. "A Deep Learning Approach for Image Quality Assessment of Fetal Brain MRI". *International Society for Magnetic Resonance in Medicine Annual Meeting* (2019). **Oral Presentation.**

Awards

National Science Foundation Graduate Fellowship	2018
National Institutes of Health Neuroimaging Training Program Fellowship	2017, 2018
Eta Kappa Nu	2016
Tau Beta Pi	2016
Intel Science Talent Search Semifinalist	2013