Nalini Singh

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Education

Harvard-MIT Division of Health Sciences and Technology, Ph.D.   **(Expected) Jun 2022**
Advisor: Polina Golland; Concentration: Computer Science

Massachusetts Institute of Technology, S.B.   **Jun 2017**
Major: Electrical Engineering and Computer Science

Experience

Google, Inc., *Software Engineering Intern (Google Brain)*   **Jun 2018 – Aug 2018**
- Applied and evaluated several methods for explaining neural network predictions on medical image datasets

Google, Inc., *Software Engineering Intern (Google Station)*   **Jun 2017 – Aug 2017**
- Implemented feature to increase use of public wi-fi at international rail stops
- Project launched externally at 15 Google Stations in November 2017

IBM Research, *Research Intern (Healthcare Analytics Group)*   **Jan 2017 – Feb 2017**
- Designed and conducted feature analyses to determine proteins involved in adverse drug reactions

Nihon Kohden Innovation Center, *Research Intern*   **Jun 2016 – Jun 2017**
- Developed classifiers for evaluating relevance of bedside alarms in neonatal intensive care units

Charles Stark Draper Laboratory, *Signal Processing, Algorithms, & Software Intern*   **Jun 2015 – Aug 2015**
- Developed and implemented computer vision methods for "lost robot" parafoil localization without GPS
- Algorithm currently being used in parafoil flights

MIT Media Lab, *Undergraduate Researcher (Biomechatronics Group)*   **Jan 2014 – Dec 2017**
- Led research project to develop biomimetic prosthesis control systems for walking across varied terrains
- Awarded 2nd place oral presentation at EECSCon, MIT's premier undergraduate EECS research conference

Publications

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

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

Teaching

Signals, Systems, and Inference, *Teaching Assistant*   **Feb 2017 – Jun 2017**
- Taught and planned three weekly tutorial sections; assisted students in office hours and electronically
- Earned a 6.8 rating (on 7.0 scale) for teaching quality

Leadership and Activities

MIT Eta Kappa Nu, *President*   **May 2016 – Jun 2017**
- Led chapter supporting 800+ EECS students via tutoring, educational workshops, course evaluations, etc.

MIT TechX – *Blueprint Director*   **Sep 2013 – Oct 2014**
- Founded and led organization of Blueprint, Boston's first high school hackathon (300+ attendees)
- Directed outreach efforts for HackMIT, one of the largest college hackathons worldwide (1000+ attendees)

Awards and Honors

NSF Graduate Research Fellowship, Intel Science Talent Search Semifinalist, Eta Kappa Nu, Tau Beta Pi

Skills

Python, C++, Java, Javascript, HTML/CSS, Matlab, Mathematica, LaTeX