Nalini Singh

nmsingh@mit.edu

Education

Massachusetts Institute of Technology, Cambridge, MA **Jun 2017**
Major: Electrical Engineering and Computer Science; GPA: 5.0/5.0
Relevant coursework:

- *EE:* Communications, Control & Signals, Signals & Systems, Circuits & Electronics, Digital Systems Lab
- *CS:* Machine Learning, Computer Vision, Algorithms, Computer Systems, Computer Architecture
- *BioEECS:* Biomedical Signal and Image Processing, Secondary Analysis of Electronic Health Records

Thomas Jefferson High School for Science and Technology, Alexandria, VA **Jun 2013**
GPA: 4.5/4.0
Relevant coursework: Multivariable Calculus, Linear Algebra, Numerical Analysis, Advanced Math Techniques

Experience

Nihon Kohden Innovation Center, Cambridge, MA **Jun 2016 - Present**

- Developing signal processing/machine learning models for alarm reduction in neonatal intensive care units

MIT Media Lab – Biomechatronics Group, Cambridge, MA **Jan 2014 - Present**

- Leading 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

Vecna Technologies, Cambridge, MA **Jan 2016**

- Researched, selected, and tested localization/mapping (SLAM) strategies for hospital delivery robot

Charles Stark Draper Laboratory, Cambridge, MA **Jun 2015 – Aug 2015**

- Developed and implemented computer vision methods for "lost robot" parafoil localization without GPS; algorithm currently being used in test parafoil flights

The MITRE Corporation – Nanosystems Group, McLean, VA **Jun 2011 - Aug 2013**

- Derived a Kirchhoff-like law for atomic capacitances for use in molecular-scale circuit modeling
- Wrote paper describing findings and was selected as an Intel Science Talent Search semifinalist

Leadership and Activities

MIT Eta Kappa Nu, President **May 2016 - Present**

- Lead 15-person officer team and 70-member organization that supports 1200+ MIT EECS undergraduates by running department-wide tutoring programs, educational workshops, course evaluations, etc.

MIT Hacking Medicine, Mentorship Lead **Jun 2014 – May 2016**

- Led a team to improve quality of mentorship for attendees at MIT Hacking Medicine hackathons
- Organized H^3: How to Hack Healthcare, MIT's undergraduate healthcare hackathon

Gordon-MIT Engineering Leadership Program **Sep 2015 – May 2016**

- Participate in selective MIT program that prepares students to assume roles as engineering leaders

MIT TechX – HackMIT Committee, Blueprint Director **Sep 2013 – Oct 2014**

- Founded and led a team to organize Blueprint, Boston's first high school hackathon (300+ attendees)
- Directed outreach efforts for HackMIT, one of the largest college hackathons worldwide (1000+ attendees)

Honors and Awards

National Society of Women Engineers Grace Murray Hopper Scholarship, Intel Science Talent Search Semifinalist, Eta Kappa Nu, Tau Beta Pi

Skills

Software: Python, C++, Java, HTML/CSS, Javascript, MATLAB, Mathematica, LaTeX
Hardware/CAD: Verilog, FPGA Design, Lab Equipment (Oscilloscope, Logic Analyzer), Solidworks