NEERJA AGGARWAL

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EDUCATION

Massachusetts Institute of Technology **Cambridge, MA**
Candidate for Bachelor of Science in Electrical Engineering June 2016
with a minor in Theatre Arts: GPA: 4.7/5.0

RESEARCH & WORK EXPERIENCE

Research Assistant – Physical Optics and Electronics **Cambridge, MA**
MIT EECS SuperUROP Program: Rajeev Ram's Research Lab Sep 2014 – Present
- Miniaturized laser, driver circuitry, and mechanical housing for use in wearable Raman glucose sensor
- Ordered components, independently designed and built prototype, tested device for signal quality & accurate measurement

Electrical Engineering Intern - Corporate Innovation/Wireline and Perforating **Houston, TX**
Halliburton Energy Services: Wireline & Perforating Product Service Line Jun 2014 – Aug 2014
- Designed experiments for high risk component testing in optics and electronics lab; analyzed & filtered data using MATLAB
- Collaborated with fifteen other scientists, engineers, and managers on a multi-million dollar fiber optics telemetry project
- Selected as one of top three interns; presented project results for Vice Presidents of Technology and of Wireline and Perforating

Student Intern – Android Development, Medical Devices **New Delhi, India**
MIT International Science Technology Initiative India: Richard Fletcher's Group June 2013 – Aug 2013
- Developed Android application to diagnose anemia using smartphone camera; debugged and calibrated using blood samples
- Drafted proposals and ethics applications, communicated between MIT & India teams

Research Assistant – Materials, Nanotechnology **Houston, TX**
Rice University: Andrew Barron's Research Lab Group Oct 2010 – July 2012
- Designed parametric experiments to synthesize and characterize multi-walled carbon nanotubes via chemical vapor deposition
- Published research: Orbaek, A, Aggarwal, N, Barron A. The development of a "process map" for the growth of carbon nanomaterials from ferrocene by injection CVD. *Journal of Materials Chemistry A,* 2013. **1,** 14122-14132

LEADERSHIP & PROJECT EXPERIENCE

Gordon-MIT Engineering Leadership Program **Cambridge, MA**
Year One Active Member and Blogger Aug 2014 - Present
- Led team members in engineering leadership lab simulations to deliver on time, on budget, and to specifications
- Built on resourcefulness, collaboration, initiative, and creativity; reflected using discussions and personal blog for MIT admissions

MIT IEEE/ACM Electrical Engineering Committee VOLTAGE Chair **Cambridge, MA**
Student run team Dec 2014 -Present
- Founded student-run team to organize academic and social events for EE undergrads, budgeted funds, led meetings

Director - The Importance of Being Earnest by Oscar Wilde **Cambridge, MA**
MIT DramaShop Fall One-Acts Aug 2014 - Nov 2014
- Led the creative vision for staging a modern adaptation of the classic play; directing rehearsals and staying on schedule
- Collaborated with set, costume, lighting, and sound designers; made final casting and design decisions

SKILLS & INTERESTS

Computer & Engineering Skills: MATLAB, Python, Android App Development, Java, SolidWorks, Fabrication, Circuits
Lab Skills: Raman Spectroscopy, Electron Microscopy, Photoluminescence, UV-Vis-NIR Spectroscopy
Extracurricular Activities: MIT Women's Club Ultimate Frisbee Team Captain, MIT DramaShop, MIT Outing Club, IEEE/ACM
Languages: Hindi (fluent), Spanish (proficient)