

# NEERJA AGGARWAL

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## EDUCATION

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### Massachusetts Institute of Technology

Cambridge, MA

Bachelor of Science in Electrical Engineering and Theatre Arts

Masters of Engineering in Electrical Engineering

Sep 2012 - Dec 2017

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## RESEARCH & WORK EXPERIENCE

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### Research Assistant – Physical Optics and Electronics Lab

Cambridge, MA

MIT Research Laboratory of Electronics, Principal Investigator: Rajeev Ram

Sep 2014 – May 2015

- Designed and fabricated prototypes of miniaturized, wearable laser and electronics for biosensing
- Conducted Raman spectroscopy experiments with *in vitro* skin tissue

### Print Process Engineer

Somerville, MA

FormLabs, Inc

June 2015 – Aug 2015

- Debugged, print failures and assisted with systems integration on the Form 2 - advanced desktop stereolithography printer
- Designed and tuned heater control loop to maintain constant resin temperature during printing

### 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

### Research Assistant – Materials, Nanotechnology

Houston, TX

Rice University: Andrew Barron's Research Lab Group

Oct 2010 – July 2012

- Grew and characterized 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

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## LEADERSHIP & PROJECT EXPERIENCE

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### Founder - VOLTAGE

Cambridge, MA

MIT IEEE/ACM Electrical Engineering Committee

Dec 2014 -Present

- Founded student-run team to organize academic and social events for EE undergrads, budgeted funds, led meetings
- Awarded MIT EECS Student Service Award 2015

### Stage Director - Theatre

Cambridge, MA

MIT Theatre Arts, MIT Experimental Theatre Company

Aug 2014 - Present

- Led the creative vision for staging full length theatrical productions at MIT; made final casting and design decisions
- Collaborated with 20+ person team of performers and set, costume, lighting, sound designers

### Fundraising Captain, Historian - sMITe

Cambridge, MA

MIT Women's Club Ultimate Frisbee Team

Sep 2012 - Present

- Played all five years, led workouts, goal-setting meetings and logistics planning for spring competitive season for the B-team
- Wrote the alumni newsletter asking for donations; currently planning other events to help fundraise

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## SKILLS & INTERESTS

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**Computer & Engineering Skills:** MATLAB, Python, Android App Development, Java, SolidWorks, Machining, Optics & electronics

**Lab Skills:** Raman Spectroscopy, Electron Microscopy, UV-Vis-NIR Spectroscopy