

# Rahi Shah

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## EDUCATION

### Columbia University

MS IN MECHANICAL ENG.  
Grad. Jan 2017 | New York, NY  
Cum. GPA: 3.51  
Conc. in Energy Systems

### Pandit Deendayal Petroleum University (PDPU)

B.TECH IN MECHANICAL ENG.  
Grad. May 2015 | Gujarat, India  
Cum. GPA: 3.75 / 4.0

## CERTIFICATION

### LEED Green Associate

## COURSEWORK

### Graduate

Advanced Heat Transfer  
Computational Fluid Dynamics  
Energy Dynamics of Green Buildings  
Micro Electro- Mechanical Systems

### Undergraduate

Heat and Mass Transfer  
Refrigeration and Air Conditioning  
Non Conventional Energy Sources  
Combustion, Fuels and Pollution

## SKILLS

### Programming

Python • Mathematica • MATLAB • EES  
• L<sup>A</sup>T<sub>E</sub>X • R • Processing • C++

### Software

PTC Creo • SolidWorks • ANSYS (Fluent)  
• OpenFoam • Open Modelica • ArcGIS  
• Cycle Tempo • LabVIEW • COMSOL  
• Primavera • Master Builder

## RESEARCH

### SWAMY GROUP | GRADUATE RESEARCH ASSISTANT

Aug 2015 – Present | New York, NY

**Theoretical** Lifshitz theory of van der Waals pressure in dissipative media for study of fluid interfaces near critical point. Mathematical modeling, data analysis and validation.

**Experimental** work on selective radiative emission and passive cooling properties of thin-films such as PDMS (Polydimethylsiloxane).

### ORSP, PDPU | UNDERGRADUATE RESEARCHER AND TEAM LEADER

Jan 2014 – Aug 2015 | Raisan, India

Successfully designed and executed a test rig for experimental investigation of **Organic Rankine Cycle** using scroll expander. The 1.8 kW capacity plant uses a modified automotive scroll compressor replacing the conventional turbine at net 8% thermal efficiency. Under the guidance of **Prof Surendra Kachhwaha** and Office of Research and Student Programs (ORSP). Publication under progress.

## EXPERIENCE

### HENICK-LANE INC. | PROJECT ENGINEERING INTERN

Sept 2016 – Dec 2016 | New York, NY

- Responsible for Estimating, Scheduling and Value Engineering of high-rise as well as residential HVAC projects.

### L&T POWER | SUMMER ENGINEERING INTERN

May 2014 – July 2014 | Baroda, India

- Worked in central planning and monitoring division of an ongoing supercritical thermal power project.
- Created work break-down structure and earliness/tardiness scheduling for Demineralization plant for a running project.

### MEMBRANE SYSTEM SPECIALISTS | SUMMER ENGINEERING INTERN

May 2013 – July 2013 | Mumbai, India

- Engaged in comprehensive study, design and maintenance of fully and semi automatic Demineralization and Reverse osmosis water treatment plants. Actively took part in major repair project of two automatic DM plants in automobile industry.

## AWARDS

2015	1 <sup>st</sup> position	ACREX Quiz by ISHRAE at respective university and chapter levels. Stood among national Top 20
2014	2 <sup>nd</sup> position	Adhyayan – Paper presentation competition, PDPU
2014	Scholarship	Undergraduate research grant awarded by Office of Research and Sponsored Programs, PDPU

## MISCELLANEOUS

- Avid student of music and former guitar tutor: blues, jazz and Indian classical.
- 500+ hours of volunteer work engaging with economically backward and differently abled individuals