

# Matthew San Jose

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## Education

### University of Notre Dame

*Doctor of Philosophy (Ph.D) in Electrical Engineering*

- Schmitt Fellowship

Notre Dame, IN  
Expected May 2024

### State University of New York Polytechnic Institute

*Bachelor of Science (B.S) in Nanoscale Engineering*

GPA: 3.99/4.00

Albany, NY  
August 2015 - May 2019

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## Experience

### Clean Track Processing Intern

*Tokyo Electron Technology Center*

Albany, NY  
August 2018 - July 2019

- Performed cross-section SEM sample preparation, and imaging, of films and periodic structures with dimensions below 100 nm
- Provided timely SEM images to assess experimental, track-based approach for multiple patterning
- Reduced ellipsometer data workup time by over 90% with VBA macro
- Transferred cross-section SEM skills to untrained employee

### Equipment Engineering Intern

*Maxim Integrated*

Beaverton, OR  
May - August 2018

- Improved safety of maintenance procedures for 12 etch tools by designing lift assists for unwieldy parts over 35 lbs
- Created prototype for low-profile 75 lbs turbopump lift assist to make replacements safer
- Worked regularly with vendors and contractors to source parts and labor

### Thin Films Processing Intern

*Tokyo Electron Technology Center*

Albany, NY  
May 2017- May 2018

- Reduced deposition process time by 50% by installing heated chemical delivery system
- Upgraded multi-purpose vacuum system with various modifications, including increased temperature control and 66% expanded chemical capacity
- Authored new procedures, and updated existing documentation on hardware maintenance
- Collaborated with engineers, both within and outside of main group, to procure resources and expedite project completion

### Summer Research Intern

*State University of New York Polytechnic Institute*

Albany, NY  
June - August 2016

- Synthesized and characterized precursors to novel organometallic materials for extreme ultraviolet lithography
  - Presented research in group meetings, and in a public symposium
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## Skills

**Research/Hardware:** SEM, XPS, MS, ALD, Vacuum Systems

**Software:** Familiar with Python, C, Excel VBA

**Miscellaneous:** Public Speaking, SPC, Cleanroom Experience, Flammable chemical handling