# Priya Patel

Materials Science Engineer

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## EDUCATION

**Materials Science and Engineering (B.S.),** *Mechanical Engineering Focus* ***Expected: Jun. 2020***
University of California, Davis

## PUBLICATIONS

*First-author publication*: Priya P. Patel, et al. “Dynamic Vapor Sorption and Moisture Capacity of Polymers” (LLNL, 2019)

## PROFESSIONAL EXPERIENCE

**Lawrence Livermore National Laboratory (LLNL)** ***Jun. 2019 - Sept. 2019***
*Materials Science R&D Intern* *Livermore, CA*

- Developed MATLAB/Python-based optimization code to analyze the moisture isotherm behavior of polymers
- Launched complex and user-friendly database using Python and Java for team’s materials
- Modeled 3D simulations to determine effect of temperature, humidity, thickness on diffusion/moisture capacity

**OSRAM Opto Semiconductors** ***Dec. 2019 - Current***
*Senior Design Project Lead* *Sunnyvale, CA*

- Spearhead team of students to find low-temperature epoxy to reduce VOC contamination in laser diodes
- Manufacture and assemble aluminum nitride chips onto Kyocera ceramic sockets, while avoiding defects
- Coordinate design specs with OSRAM, write proposals, present research at UC Davis Senior Design Show Case

**UC Davis Materials Characterization Lab** ***Feb. 2018 - Current***
*Lab and Research Assistant* *Davis, CA*

- Utilize physical vapor deposition to create thin film coatings to improve hardness/wear resistance of material
- Apply high-resolution x-ray diffraction, SIMS depth profiling, and TEM to probe surface of material
- Quantitatively inspect properties of silicon/semiconductors for failure analysis, fracture, creep behavior

**UC Davis Department of College of Engineering** ***Sept. 2017 - Jan. 2019***
*Website Developer and Writer* *Davis, CA*

- Designed, coded, and debugged the UC Davis College of Engineering website in Linux system
- Worked with other IT assistants to code and develop quality web content and design
- Updated website with information and photos of current engineering events and ongoing research

**Engineers Without Borders** ***Oct. 2017 - Jun. 2018***
*Indonesia Project Lead* *Davis, CA*

- Administered the restoration of existing water distribution system in village Dusun Sogra in Bali, Indonesia
- Collected data regarding current water system, developed and implemented finance and construction plan
- Applied engineering background and economic skills to assess sociocultural framework of foreign country

## SKILLS

- Proficiency in coding languages (MATLAB, Python, Java), 3D CAD, SolidWorks, Lean, Six Sigma, Microsoft Excel
- Technical lab experience: optical microscopy, wet processing, etching, lithography, mechanical testing
- Leadership, communication, creative problem-solving, critical thinking, adaptability, team player, fast-learner

## EXTRACURRICULARS

**Society of Women Engineers (SWE)** ***Nov. 2016 - Current***
*National organization member* *Davis, CA*

- Attend monthly STEM conventions and interact with companies in the engineering industry
- Host Project Aspire: introduce young girls to the world of tech and engineering careers

**UC Davis Raasleela** ***Sept. 2016 - Current***
*Captain* *Davis, CA*

- Manage logistics, finances, choreography, and production for nationally-competing university dance team
- Communicate with competition boards to meet deadlines efficiently and with team to ensure smooth practices

## AWARDS AND RECOGNITIONS

***Global Engagement Award*** – Awarded by UC Davis Division of Student Affairs to Engineers without Borders project leads for outstanding global impact and promoting cross-cultural awareness
***2018 Achievement Award*** – Recognized by MASC for exemplary innovations/participation in Materials Eng.