

Student Growth Across all LAMDA Functions from Undergraduate to Faculty

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<i>Award Title:</i>	RII Track -1: Louisiana Materials Design Alliance (LAMDA)
<i>NSF Award Number:</i>	NSF OIA-1946231
<i>Principal Investigator:</i>	Michael Khonsari
<i>Lead Institution Name:</i>	Louisiana State University
<i>Award Start Date:</i>	August 1, 2020
<i>Award End Date:</i>	July 31, 2025
<i>Highlight Submission Date:</i>	February 28, 2024

What is the outcome or accomplishment? (1-2 short sentences describing it and why it is transformative; 50-word maximum suggested)*

Raelyn Henderson, a graduate student at Louisiana State University, has been involved with LAMDA across every level of her collegiate experience. Raelyn served as an Extended/Reverse Research Experience for Undergraduates (E/RREU) participant under the mentorship of Dr. Congyuan Zang, a former LAMDA graduate student at LSU and current Southern University and A&M College faculty member. She received her bachelor's and master's degrees from Southern and is now at LSU working under the mentorship of Dr. Shengmin Guo as a member of the inaugural cohort for the LSU Future Scholars Program.

What is the impact? (1-2 simple sentences describing the benefits for science, industry, society, the economy, national security, *etc.*; suggested 50-word maximum)

Being a Baton Rouge resident, Raelyn serves as a strong representation for young students in the jurisdiction. She was able to participate in multiple internships as an E/RREU participant, using the experience gained from her research at Southern University with LAMDA faculty as a springboard for success. As Dr. Zang was involved with LAMDA as a graduate student, it shows the complete pipeline impact from undergraduate studies through assistant professorship.

What explanation/background does the lay reader need to understand the significance of this outcome? (1-2 paragraphs that might include, for example, more on who, when, where; NSF's role; support from multiple directorates/offices; what makes this accomplishment unique; additional intellectual merits; or broader impacts such as education, outreach, or infrastructure improvement that are integral to this outcome; suggested 150-word maximum)

Retaining talented individuals within the jurisdiction is always to the benefit of Louisiana. Having a Louisiana resident that attended state institutions, completed research with highly qualified LAMDA faculty, and is pursuing their Ph.D. to go on to be an assistant professor in this state will result in a direct boost to the educational attributes of faculty. This will lead to a more highly skilled workforce through those students that she has interacted with, as well as those that she will teach in the future.



Raelyn Henderson during her internship at Chevron. *Credit: Raelyn Henderson, Louisiana State University, rhend26@lsu.edu*