

Highlighting Undergraduate Research at Cal Poly – a High Impact Practice to Promote Student Success

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Undergraduate Research Snapshot

- 42% of Cal Poly's senior respondents to the NSSE survey reported participating in undergraduate research
- Cal Poly's Office of Student Research estimates that more than 5000 Cal Poly students participate in undergraduate research experiences annually
- Cal Poly has 21 centers and institutes that annually offer applied research opportunities for undergraduate students
- Cal Poly's 2022 Summer Undergraduate Research Program (SURP) had over 400 participants spanning 5 colleges. The College of Engineering's Multicultural Program (MEP) delivered specialized workshops to encourage students from traditionally marginalized backgrounds to participate in SURP.
- Cal Poly's Believe, Educate & Empower, Advocate, Collaborate, Nurture (BEACoN) program, designed to educate and empower underrepresented students, supported over 45 undergraduate research projects across 6 colleges
- The Louis Stokes Alliance for Minority Participation in STEM (CSU-LSAMP) provides resources and opportunities for URM students to engage with faculty members and find undergraduate research opportunities on and off campus.
- The work of Cal Poly's Office of Student Research is shaped and inspired by the "Academic Secret Menu" project of the **ReclaimingSTEM Institute** whose purpose is to "change who leads the scientific enterprise and how they lead by building scientists from across diverse and historically marginalized communities."

Animal Genomics



Figure 4. Three Undergraduate Students presenting at the 2022 International Canadian and American Society of Animal Science conference, Oklahoma, USA

Plant Sciences



Figure 8. Undergraduate student Evan Tamayo presenting his project at the symposium for the SURP.

Figure 9. Undergraduate student Samantha Anderson studying the virulence of a fungal pathogen on grape leaves.



Figure 10. Graduate student Reilly Blair and Undergraduate Research Assistant Evan Tamayo rating arugula for downy mildew resistance.

Soil Science



Figure 1. Undergraduate student taking greenhouse gas samples at a vineyard



Figure 2. Undergraduate student taking soil samples to assess rangeland soil health



Figure 3. Graduate student taking soil samples to assess nitrogen dynamics at a vineyard

Food Safety & Microbiology



Figure 5. Undergraduate Students presenting at Cal Poly CAFES symposium



Figure 6. Industrial cured meats competition by California Association of Meat Processors

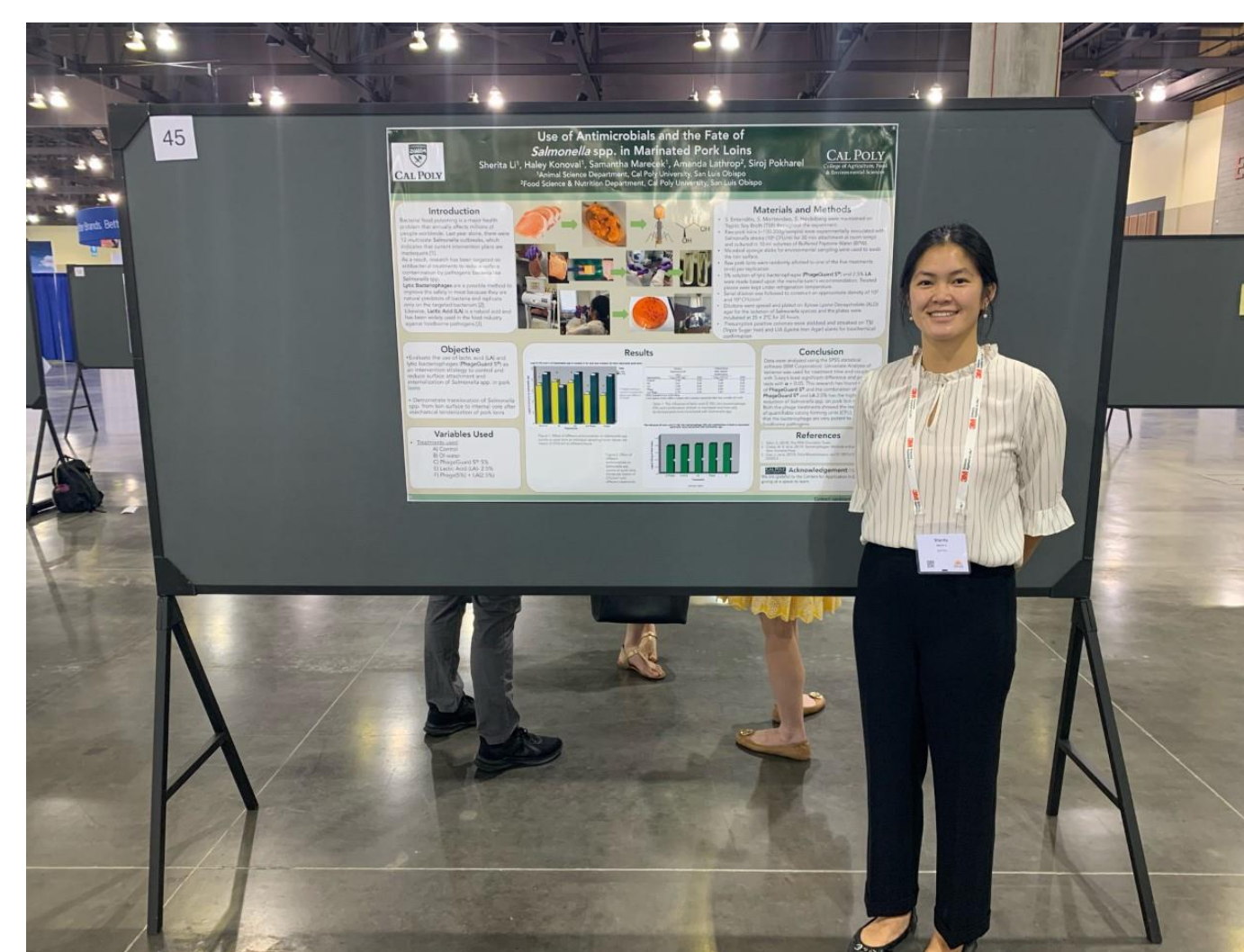


Figure 7. Graduate Student, presenting in American meat Science Association Conference, Nevada, USA

Computer Engineering

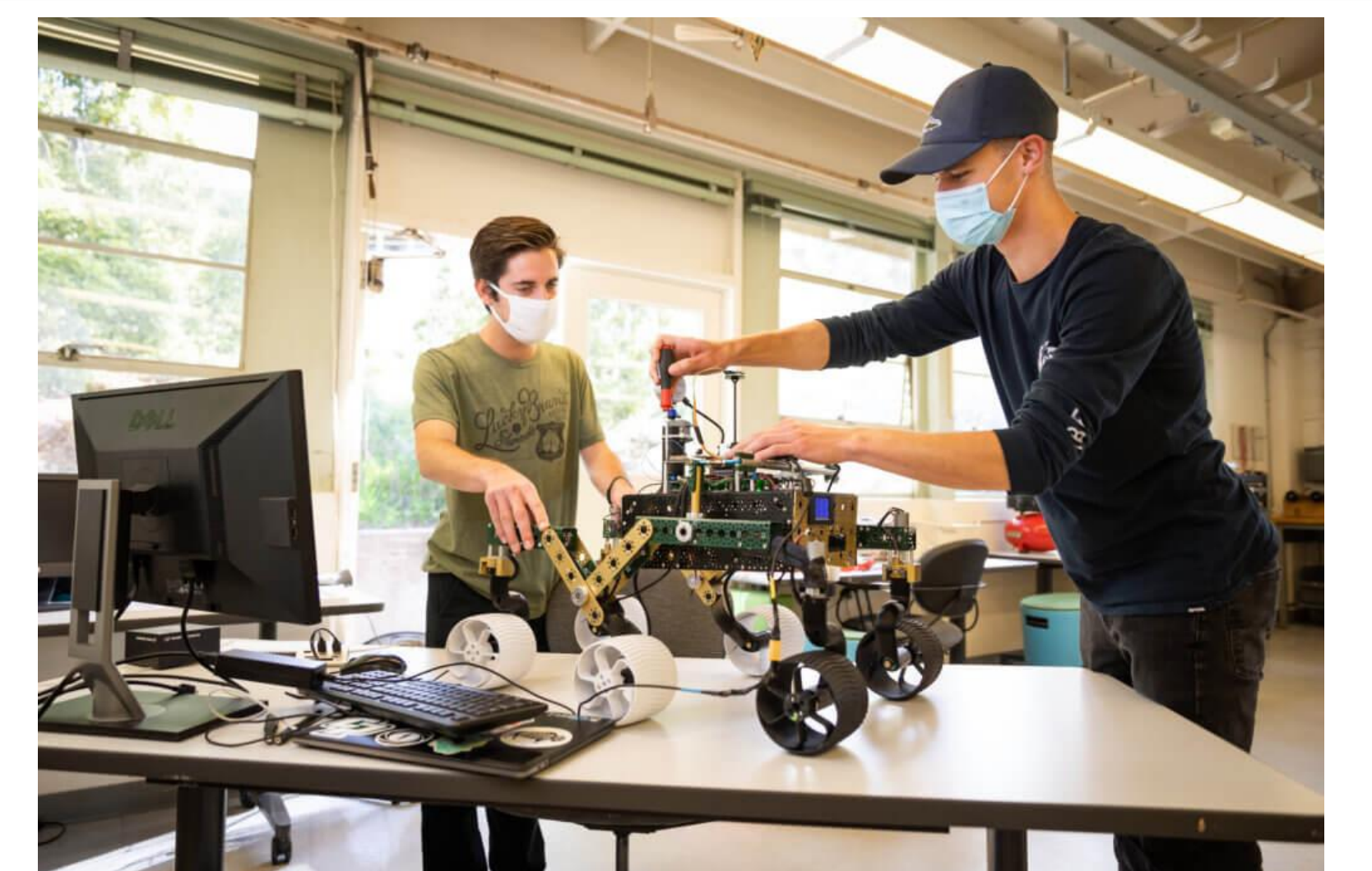


Figure 11. Undergraduate students design a space rover

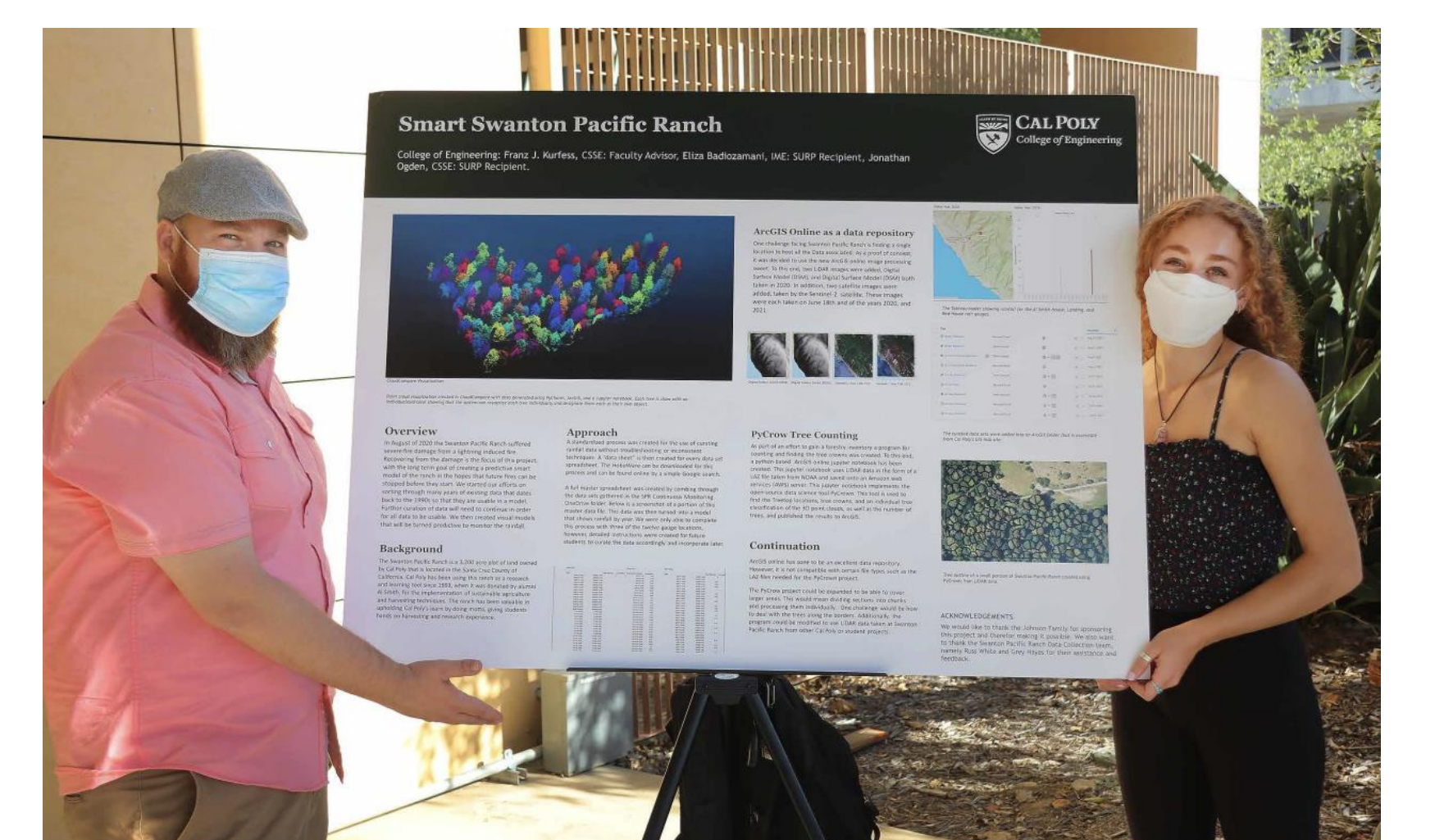


Figure 12. Undergraduate students model the effect of fire and rainfall at Swanton Pacific Ranch

Acknowledgements



❖ We thank our students who gave their consent to publish their pictures in the current poster.