AISES Region 2 - California Professional Chapter Meeting

Lauren Denson (Chihene Nde Nation of New Mexico)

AISES Professionals are invited to learn about the CA Professional Chapter, meet officers, and join in on this meeting to discuss upcoming outreach opportunities, ways to get involved, and network!

AMA for NASA JPL Professionals

Lauren Denson (Chihene Nde Nation of New Mexico)

Join NASA's Jet Propulsion Laboratory's Indigenous ERG NEBULA for an AMA (Ask Me Anything) Session! Topics could include:
- Path to NASA JPL
- Day to Day (Life of Engineers, Scientists, etc.)
- Pro Tips on how to get a job, internships, interviews
- College Journey and Advice
- Navigating the workplace and personal identities
- Walking both Worlds - navigating Code Switching

The Biology of Land Back

Samantha Johnson (Gabrieleno Tongva)

Introduction to restoration science, soil ecology, and intermingling politics around land back through the personal experience of the TTPC Land Return Coordinator. This will be about using traditional ecological knowledge, modern science, and storytelling to help combat climate change and return native land to native people of all species. When the land, now named Huhuungna - Tongva for "the place of the bear" - was returned, the land had over 30 tons of trash and a dense overgrowth of eucalyptus trees and other non-native species. After many hours of volunteer junk removal, the restoration of the land and soil has finally begun. Having only recently removed the largest invasive species on the land, eucalyptus, the project is now near the end of its beginning phase of restoration. The goal would be to give native people in STEM interested in land back an example of land restoration in progress and the science that's required behind it. By the end of the session the audience should be able to help evaluate land for non-federally recognized tribal acquisition, how to begin the restoration process, and what to expect when acquiring land. Additionally, resources and discussions around social justice in ecology and finding grant funding/outside support. The session can be focused on the full process it took to recently remove 90 eucalyptus trees onsite, from surveying to state funding and removal of the many invasive trees (this is what the speaker is most comfortable with). Or the session can be a broader discussion on evaluating land to see if it fits the current needs of the tribe, how to evaluate it, and what to do if they want to move forward. Preferably the presentation is an open dialogue or semi-structured Q&A with a mediator but could be done as a presentation with a Q&A following. Accompanying slides of photos, videos, and data can be provided by the TTPC.

Bridging the Gap: Empowering Indigenous Professionals and Students for Future Opportunities

Stanford Lake (Navajo)

Indigenous communities possess unique knowledge, traditions, and perspectives that enrich our global tapestry. However, systemic barriers often hinder the full participation and representation of Indigenous peoples in various fields, including academia, business, and public service. To address these disparities, it is imperative to bridge the gap and create avenues for Indigenous professionals and students to thrive. By cultivating opportunities and fostering supportive environments, we can empower the next generation of Indigenous leaders and professionals.

Acknowledging Historical and Systemic Challenges:

Historical injustices, colonization, and discriminatory policies have marginalized Indigenous communities, limiting access to education, employment, and resources.
Systemic biases and stereotypes continue to perpetuate inequalities, affecting Indigenous individuals' opportunities for advancement and success.
Understanding and acknowledging these challenges are essential first steps toward meaningful change.

Education as a Catalyst for Change:

Education plays a pivotal role in empowering Indigenous communities by providing access to knowledge, skills, and resources. Culturally relevant and inclusive education initiatives are crucial for retaining Indigenous students and nurturing their talents. Collaborations between educational institutions, Indigenous communities, and governments can enhance educational outcomes and support Indigenous learners at all levels.

Building Supportive Networks and Mentorship Programs:

Establishing mentorship programs connecting Indigenous students with professionals in their fields of interest can provide invaluable guidance and support. Creating networks and support systems within Indigenous communities and ally organizations fosters solidarity and collective empowerment. Mentorship initiatives should prioritize cultural sensitivity, respect traditional knowledge, and promote holistic well-being.

Promoting Economic Empowerment and Entrepreneurship:

Economic opportunities, including entrepreneurship and workforce development initiatives, can drive sustainable development within Indigenous communities. Supporting Indigenous-owned businesses, promoting local entrepreneurship, and providing access to capital and resources are essential for economic empowerment. Collaboration with industry partners, government agencies, and philanthropic organizations can create pathways for economic advancement and self-determination.

SESSION INFORMATION

Advocating for Policy Reforms and Representation:
Advocacy efforts are crucial for addressing systemic barriers and promoting policies that recognize and uphold Indigenous rights and interests. Increasing Indigenous representation in decision-making processes, leadership roles, and public institutions is essential for meaningful change. Supporting initiatives that promote Indigenous sovereignty, self-governance, and cultural preservation strengthens Indigenous communities' resilience and autonomy.

Bridging the gap and empowering Indigenous professionals and students require concerted efforts from various stakeholders, including governments, educational institutions, businesses, and civil society. By fostering inclusive environments, providing educational opportunities, and promoting economic empowerment, we can cultivate a future where Indigenous peoples thrive as leaders, innovators, and stewards of their cultural heritage. Together, let us commit to building a more equitable and inclusive world for all.

Caltech Undergraduate Admissions Information Session
Melissa Rodrguez
Join this session to learn about the California Institute of Technology (Caltech, located roughly two miles from the Westin Pasadena. Caltech is known for being a leading STEM-institution in research and industry. Melissa Rodriguez (Undergraduate Admissions Counselor) will offer an information session covering Caltech's history, community, academics, social life, and outcomes. Attendees will be able to gain an understanding of Caltech's mission, requirements, and more. This presentation will be offered with a PowerPoint presentation.

CS for Everyone
Pamela Allen
Explore the world of computer science and its power to make the world a better place. Whether you have coded before or you're just curious about the tech field, this session will show you how computer science is a part of your everyday life and the impact computer science can have on diverse communities. Join our interactive discussion and informative presentation "CS for Everyone" designed to highlight the inclusivity and accessibility of computer science education at Khoury College of Computer Sciences.

From the Coasts of Pasifika: Going Beyond the Data with Pacific Island Perspectives & Stories

Talofa Fe'a (Pacific Islander, Samoan)
General Description: "Pasifika" is a transliterated term for "Pacific," coined in New Zealand to describe the peoples and communities from the South Pacific Islands. In this session, conference attendees will explore the power of storytelling in research and how it can enrich academic discourse. Drawing from her own experiences and aspirations as a tama'ita'i Samoa in STEM, Talofa Fe'a will illustrate how she navigated the process of incorporating perspectives and experiences 'from the coasts of Pasifika' into her work with NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) as a NOAA EPP/MSI Scholar. Together, the audience and the speaker will reflect on how researchers and scientists can collaborate with communities to co-create knowledge and amplify the voices of peoples, places, and cultures.

Getting to Know AISES and a Guide to Chapter Success
Kaitlan Lyons (Ojibwe/Anishinaabe)
This info session will give tips and tricks on how to maintain a successful chapter and other general AISES information. Funded by the Jack Kent Cooke Foundation

How Undergraduate Research Experiences and Internships Will Impact Your Future Career
Franklin Dollar (Dry Creek Band of Pomo Indians)
In this session, we will introduce summer research opportunities and internships as a means for preparing for both the workforce and graduate school. We will cover some of the main programs that are relevant to American Indian and Alaska Native students, and how such opportunities can align with personal values and goals. Aside from providing funding for 8-12 weeks, we will see how there are many more benefits that can have long lasting impacts for a student. Application materials and a mock application process will be covered.

Indian Health Services Session – TBD

Indigenizing Higher Education: Empowering Native Students through AIR at UCLA
Deniale Urbina (Acoma Pueblo)
Amiee Scott (Cupeño and Cheyenne) - 2nd Year Psychology Major
Anjeliq Pinn (Fernandeño Tataviam Band of Mission Indians) - 2nd Year American Literature & Culture Major, American Indian Studies Minor
Bri Sobrero (Washoe and Kānaka Maoli) - 2nd Year Transfer/4th Year Anthropology and History Double Major
Cadence Benally (Navajo) - Neuroscience Major
Ella Kohler (Sac and Fox) - 2nd Year Transfer/4th Year Sociology Major
Jaeden Wesley (The Mississippi Band of Choctaw Indians) - Mathematics/Economics and Statistics/Data Science Double Major
Sage Hatch (Navajo) - 2nd Year Psychology Major
Toipureenah Orozco (Mazahua, Huichol, and Raramuri) - 2nd Year International Development Studies Major
This session will showcase American Indian Recruitment (AIR), a student-initiated, student-run, student-led outreach project with the goal of increasing Native representation in higher education and at UCLA. We will review the resources AIR offers, such as weekly tutoring and mentoring, application assistance, community college support, and community outreach. In addition, AIR staff will share their personal experiences as current undergraduate students to highlight how Native students can take initiative within their communities and Indigenize their academic experiences. Overall, our goal is to promote AIR as a resource specific to the Native experience in higher education and build stronger connections with students within Region 2.

SESSION INFORMATION

Inspiring AISES Interns Beyond the Classroom
Curtis Alcantar (Tejon Indian Tribe)
Colin Rambo

Curtis Alcantar is a former AISES Intern and an enrolled member of the federally recognized Tejon Indian Tribe of Kern County, CA, where he worked as a "Tribal Cultural Resource Specialist" (aka "Tribal Monitor)" from 2018 – 2023. During his tenure as a Tejon Tribal Monitor, Curtis was mentored by Colin Rambo, the former Tejon Tribal Cultural Resource Manager who encouraged Curtis to become a professional archaeologist by studying Anthropology/Archaeology at a four-year university. Upon completing his AISES internship, and in advance of earning his bachelor's degree (expected May 2024), Curtis has been hired as a professional archaeologist at Stantec. Now that Curtis and Colin work together again, Stantec encouraged Curtis and Colin to collaboratively develop this session as a means of inspiring future AISES interns and mentors by reflecting upon their shared journey as professional archaeologists.

One of the creative initiatives of the Tejon Tribal Cultural Resource Management Department that motivated Curtis to apply to college was the partnership between the Tejon Tribe and the University of Central Lancashire, UK, that resulted in the development of a Virtual Reality (VR) experience highlighting some of the Tejon Tribe's cultural resources located along Pleito Creek, Kern County, CA - i.e., the photogrammetric and 3D modeling of ethnohistoric baskets and the "Pleito Cave Rock Art Site" (CA-KER-77). Curtis will reflect upon his STEM career journey, and Colin will discuss the importance of mentorship and providing engaging opportunities for AISES Interns beyond the classroom. Curtis will then invite the audience to experience (tour) the "Pleito VR Project," first-hand. The audience will be free to interact with and/or ask questions of both presenters during the VR tour.

Living on the Edge: Creatures on the Event Horizon
Jacob Sansur Linarez

My project draws from the captivating experiences of Indigenous Creation stories; this project embarks on exploring the cosmos. These Creation narratives, rich with imagery and wisdom, paint a picture of the universe as a vibrant and interconnected web of life. Inspired by these profound insights, our journey explores the mysteries of existence, seeking to unravel the threads that bind us to the cosmos. Creation narratives, rooted in a deep respect for all forms of existence, inform our exploration of Theoretical Physics.

In Theoretical Physics, they have developed the Grand Unified Theory (GUT) and the Unified Force Equation (UFE) to explain the fundamental forces of nature and their unification. These theories aim to provide a comprehensive framework integrating electromagnetism and weak and strong nuclear forces into a single, cohesive theory. Through the dual perspectives of theoretical physics and Indigenous wisdom, scientists aim to transcend the 'us vs. them' mindset when studying alien life. By integrating scientific theory with spiritual insights, we seek to celebrate the diversity and interconnectedness of all beings. Indigenous stories tell of stars, animals, and elements in a harmonious dance of creation. As scientists, we explore the possibility of finding life forms in the cosmos. My research investigates the possibility of a Black Hole Extremophile, an organism hypothesized to thrive in extreme conditions near black holes. The hypothesis will be supported by evidence gathered through observation and data analysis from space-based observatories. In studying these and other forms of alien life, it is hard to imagine how we relate to these entities in life.

Indigenous creation stories offer compelling insights into frameworks for understanding phenomena that may seem improbable through conventional scientific lenses. For instance, it challenges traditional notions by suggesting the possibility of life existing on the event horizon of a black hole, a concept traditionally viewed as inhospitable to life due to its destructive nature. This example highlights Indigenous narratives' unique perspectives, prompting us to reconsider our understanding of the universe and its potential for diverse forms of existence. In indigenous creation stories, there is always a balance between the forces of the universe. Through this balance, life is created and destroyed, all a part of an ancient cycle and understanding of the nature of reality. The points of seeming contradiction invite our reflection on the great mysteries of creation. The fact that life could exist on the event horizon challenges us to go back to the drawing board of what we think we know. It reminds us of our humble place in the universe and our responsibility to approach the unknown with curiosity, respect, and an open heart. In my research, I use everyday examples and clear explanations. My research is positioned to guide humanity's journeys from the familiar to the edge of understanding. I invite readers and audiences to share my vision of a universe where humans, extremophiles, AI, and all forms of existence share a familiar story.

NASA Session - TBD