ERIC STRIBLING

ESTRIBLI@ASU.EDU

Interdisciplinary researcher and teacher focusing on how engineered technologies contribute to global development.
Engineering universities in Africa • Environmental and social sustainability • Inclusive space technology design

EDUCATION

Arizona State University – Phoenix, AZ **2022**
Ph.D., Innovation in Global Development
Thesis: *"A University with Better Roots": Mapping the Public Value of Engineering Universities in Cameroon*
Committee: Mary Jane Parmentier, William B. Dabars, Darshan M.A. Karwat

Georgia Institute of Technology – Atlanta, GA
M.S., Mechanical Engineering – Design emphasis **2011**
• Gasification cookstove prototype won Honorable Mention in the Ideas2Serve Design Competition (2010)
B.S., Mechanical Engineering, *highest honors*. **2010**
• Exchange program with l'Ecole Nationale Supérieure d'Arts et Métiers (Metz, France)

Brevard College – Brevard, NC
B.A. with Honors, History, *summa cum laude*. **2004**
• Bachelor's Thesis: *The Challenge and the Change: Brevard College and the 1960s*, 42 p. (published by Brevard College)

ACADEMIC POSITIONS

Arizona State University – Phoenix, AZ **2021 – Present**
Assistant Teaching Professor in the Interplanetary Initiative
• Hired as an Instructional Professional to design and teach three courses in 2021; promoted to current role in 2022.

l'Université des Montagnes, Private medical university – **Bangangté, Cameroon** **2017 – 2021**
Assistant Professor of Mechanical Engineering (first hire in new mechanical engineering program)
• Worked with school officials to create curriculum, develop a machine lab, and build partnerships with local businesses.

INDUSTRY POSITIONS

Poyry Management Consulting, Consulting for capital-intensive industries – **Atlanta GA** **2015 – 2017**
Management consulting – strategic intelligence for paper, wood products, and biotech companies

Enzymatic Deinking Technologies, Enzyme provider to the paper industry – **Norcross, GA** **2012 – 2015**
Process engineering and new product design

American Journal Experts, Academic translation - **Durham, NC (Remote)** **2011 – 2012**
French-English translator for engineering articles

Imerys, Mineral mining and processing company – **Limoges, France** **2009 – 2010**
Thermal process / renewable energy engineering research – internship

Duer Carolina Coil, Coil manufacturing company – **Reidsville, SC** **2007 – 2008, 2010**
Maintenance department – critical parts specialist – internship

Peace Corps, US State Dept. agency that promotes peace abroad – **Adoumri, Cameroon** **2004 – 2006**
Agroforestry volunteer – agricultural extension agent

HONORS

- ASU Charter Award for Academic Excellence, Fall 2022.
- GPSA Teaching Excellence Award, Spring 2022
- Graduate Fellow at the ASU Center for the Study of Religion and Conflict, 2021-2022.

PUBLICATIONS AND PRESENTATIONS

PEER-REVIEWED PUBLICATIONS (including reviewed engineering conference papers)

M. M. Macias, E. Stribling, T. Coelho, S. Bhardwaj, M. Malik, and B. Manuszak. "Space Exploration and Sustainable Development," IEEE International Symposium on Technology and Society 2022 (ISTAS22), November 11, 2022.

E. Stribling, "How Engineers Think and Implications for Public Interest Technology," IEEE Technology and Society Magazine, vol. 40, no. 3, pp. 37-41, Sept. 2021.

E. Stribling, "Librarians of a Vampire: Fighting against Hegel's Dialectic Narrative of Colonialism and Slavery," Us in Flux: Community, Collaboration, and the Collective Imaginations of SF, SFRA Review, vol. 51, no. 1, Winter 2021.

E. Stribling, "The Historical and Ideological Chasm between Engineering and Development," 2020 IEEE International Symposium on Technology and Society, Phoenix, AZ, November 15, 2020.

E. Stribling, The Challenge and the Change: Brevard College and the 1960s, Brevard, NC, Brevard College, 2003.

CONFERENCE PAPERS

M. Malik and E. Stribling, "From Apollo to Artemis: A product archeology study of gender-inclusive technologies for human spaceflight," The Society for Social Studies of Science (4S) 2023 Annual Conference, Honolulu, HI, November 8, 2023.

B. Manuszak, E. Stribling, D. Mickelson, and A. Kapusta, "Interdisciplinary Hackathons for Sustainable Solutions: A Case Study of the SpaceHACK for Sustainability," The Society for Social Studies of Science (4S) 2023 Annual Conference, Honolulu, HI, November 10, 2023.

S. Hamdoun and E. Stribling. "Exploring the Effects of Increased Remittance Rates on Migration, Wealth, and Urbanization: An Extension of the Felsen and Wilensky Economic Disparity Model," International Studies Association – West 2023, Pasadena, CA, September 23, 2023.

G. Nakleh, T. Coelho, E. Garayzar, L. Barduson, and E. Stribling. "A Remote Sensing Model of Landslide Vulnerability in Southern Brazil," International Studies Association – West 2023, Pasadena, CA, September 22, 2023.

E. Stribling, "Product Design of Neonatal Incubators in Cameroon: A Case Study in South-South Innovation," International Studies Association 62nd Annual Convention, April 7, 2021.

INVITED PRESENTATIONS

Invited Speaker: "The Space Industry's Impacts on Life on Earth," Responsible Space Nexus, February 20, 2024.

Invited Speaker: "'A University with Better Roots': Mapping the Public Value of Engineering Universities in Cameroon," Global Launch: Arizona State University hosting Universidad Autonoma de Baja California, January 19, 2023.

Invited Speaker: "Impactful and Custom Media Content," Online Faculty Showcase, Arizona State University, November 10, 2021.

Invited Keynote Speaker: E. Stribling, J. L. Boucher, M. M. Macias, and D. M. A. Karwat, "Will the Values of the Firms of the Future line up with the Engineer of the Future?" Engineering Change Lab - USA Summit 12, July 9, 2021.

Invited Speaker: "Engineering and Development," IGDx speaker series, March 26, 2021.

MEDIA

Featured on ASU EdPlus Podcast, Course Stories, "One Small Step: A Journey in Multicam Production", Season 1, Episode 6, May 2022.

CONFERENCE ROLES

Chair and Panel Discussant, "Aspects of War and Peace," International Studies Association – West 2023, Pasadena, CA, September 22, 2023.

Invited Participant, 2023 Annual Space Futures Convening, Arizona State University, January 13-15, 2023.

Invited Participant, "What Is Truth, and How Do We Know it?" Annual Workshop of the Recovering Truth Project on Religion, Journalism, and Democracy, Arizona State University, April 1, 2022.

Discussant, Roundtable Panel: "Widening the Discipline with Reflexive Pedagogy: Identity and Awareness in Teaching International Studies," with A. Below, California State University – East Bay, Chair, International Studies Association 63rd Annual Convention, Nashville, TN, March 30, 2022.

Facilitator, "The Gathering for Change-Makers," OpenCitizen Project, Arizona State University, Beagle Learning, and the Zuckerburg Institute, Arcosanti, AZ, November 12-14, 2021.

Invited Participant, "Aligning Global Engineering Graduate Program Priorities," NSF funded workshop, Mortensen Center in Global Engineering, with Dr. Mary Jane Parmentier, University of Colorado – Boulder, February 18-19, 2021

Organizing committee, "Development Reimagined", a four-part speaker series for ASU's School for the Future of Innovation in Society, Fall 2019.

Faculty Mentor, AR/VR Africa Hackathon, l'Université des Montagnes, with Christian Yves Fongang of SDK Africa, Bangangté, Cameroon, April 20-22, 2018.

PUBLIC SCHOLARSHIP AND ENGAGEMENT

SpaceHACK for Sustainability (S4S) – spacehack4sustainability.com **2023 - 2024**

Role: Creator, organizer, and facilitator

Description: Annual 24hr interdisciplinary hackathon empowering students to address real-world issues through satellite data

- 138 student participants from 35 different majors (18% non-STEM majors)
- Integrated into an upper-level humanities course entitled "Diplomacy Lab: Latin America"
- Three conference papers were submitted from S4S, with two more expected in Fall 2023.
- A PhD research position was created at the University of Nepal to continue research from S4S.

Space for Humans **Jan - Dec 2024**

Role: Creator, producer, and researcher

Description: Social media channel explaining topics related to ethical, inclusive engineering design of space technology

- Currently writing and filming six 10-min lectures on how current designs of space technologies often negatively impact various stakeholder groups, including women, racial minorities, and people with disabilities.
- Also writing and filming six 10-min lectures on how tools from Value Sensitive Design (VSC) can be implemented by engineers of space technologies.
- Lead producer of 80 more short-format videos, produced by undergraduate students that highlight the various intersections between space technologies and global society.

ASU Learning Sparks – sparks.learning.asu.edu **2023**

Role: Invited speaker

Description: Social media videos aimed at disseminating complex topics related to human space futures to a general audience

- Filmed seven 10-min lectures on 1) space technologies and society, 2) commercial space companies / emergent space nations, 3) space economics, 4) space law, 5) the ethics of technological design, 6) sustainability and space, and 7) space war

Interplanetary VR Sustainable Futures **2022**

Role: Creative director and researcher

Description: A VR art exhibition exploring artists' perceptions of how space and sustainability intersect

W. T. Ayton, E. Stribling, and D. Ayton-Shenker. "Interplanetary VR Sustainable Futures," featured in the ARS Electronica, "Art, Technology, and Society", Sept 7 – Sept 11, 2022, in Linz, Austria.

W. T. Ayton, E. Stribling, and D. Ayton-Shenker. "Interplanetary VR Sustainable Futures," featured in the ESPRONCEDA – Institute of Art & Culture "Digital Awareness Exhibition: From Education to Social Impact and Human Identity", June 10 – June 18, 2022, in Barcelona, Spain.

Interplanetary Lab VR Walkthrough **2022**

Role: Project lead

Description: A VR experience recreating the Interplanetary Initiative's CubeSat Laboratory for student outreach

E. Stribling, R. LiKamWa, and ASU Meteor Studio, "Interplanetary Lab VR Walkthrough," Phoenix Fan Fusion, Phoenix, AZ, June 2-4, 2023.

E. Stribling, R. LiKamWa, and ASU Meteor Studio, "Interplanetary Lab VR Walkthrough," OpenDoor, Arizona State University, Tempe, AZ, February 25, 2023.

E. Stribling, R. LiKamWa, and ASU Meteor Studio, "Interplanetary Lab VR Walkthrough," Realm 4: Education through exploration summit, Arizona State University, Tempe, AZ, November 19, 2022.

LightCube: Arduino Makers Project **2022**

Role: Creator and facilitator

Description: An Arduino-based making activity for children based on the Interplanetary Initiative's LightCube CubeSat

E. Stribling and L. Skabelund, "LightCube: Arduino Makers Project," Museum of the Moon – Desert Botanical Garden, Phoenix, AZ, February 10, 2023.

E. Stribling and L. Skabelund, "Arduino Makers Project," Realm 4: Education through exploration summit, Arizona State University, Tempe, AZ, November 19, 2022.

FUNDED ACTIVITIES

Title	Role	Years	Funding Agency	Total Funds
Space Exploration and Sustainable Development	Co-PI with Diana Ayton-Shenker	2021-2024	ASU II Big Questions Pilot Project	$122,000
SpaceHACK for Sustainability	PI	2022-2024	ASU II Big Questions Pilot Project	$56,000
Global Space Tech	PI	2022-2023	ASU II Big Questions Pilot Project	$3,000
Understanding the Environmental, Social Justice, and DEI Perspectives of Practicing Engineers	Lead of Research Team; PI Darshan Karwat	2020-2021	Engineering Change Lab – USA	$17,000

TEACHING

TEACHING EXPERIENCE

Course Title	Univ.	Semesters taught
IPI 241: Designing and Making for an Interplanetary Future (Electronics)*	ASU	FA2021, SP2022 (2), FA2022 (2), FA2023 (2)
IPI 341: Designing and Making for an Interplanetary Future (3D Printing)*	ASU	SP2022 (2), SP2024 (2)
IPI 441: Advanced Designing and Making for an Interplanetary Future*	ASU	FA2022, SP2023, FA2023
IPI 494: Special Topics: Can NASA stop wildfires?*	ASU	SP2024
PHY 120: Graphic Communication*	UdM	SP2018, SP2019, SP2020, SP2021
PHY 121: Introduction to CAD*	UdM	SP2018, SP2019, SP2020, SP2021
MEC 203: Solid Mechanics*	UdM	SP2018, SP2019
CME 206: Prototyping Lab*	UdM	SP2020, SP2021
CFO 303: Advanced CAD*	UdM	FA2017, FA2018
CFO 305: Computer Assisted Manufacturing*	UdM	FA2017, FA2018
CFO 307: Computer Assisted Design & Manufacturing Lab*	UdM	FA2017, FA2018
CPI 301: Engineered Systems*	UdM	FA2017, FA2018
CPI 303: Engineered Systems Lab*	UdM	FA2017, FA2018
ANG 201: Scientific English*	UdM	SP2018, SP2019
ANG 303: Professional English*	UdM	SP2018, SP2019

** Curriculum I developed*

TEACHING ASSISTANT EXPERIENCE

Course Title	Univ.	Semesters assisted
FIS 201: Innovation in Society	ASU	SP2021
FIS 337: Innovation and Global Development	ASU	SP2020
FIS 111: Introduction to Futures Thinking	ASU	FA2019, FA2020

CURRICULUM DEVELOPMENT**

- Advanced Structural Analysis
- Linear Algebra
- Applied Experimental Statistics
- Basic Kinematics and Dynamics
- Calculus 1
- Calculus 2
- Electrical Circuits
- Computer Programming – C++
- Machine Design
- Differential Equations
- Discrete Mathematics
- Electrostatics and Magnetism
- Fluid Dynamics
- Heat Transfer
- Materials and Processes in Manufacturing
- Mechanics of Materials
- Structural Analysis
- Systems and Controls
- Technology and Society
- Thermodynamics

*** This is a curriculum where I developed syllabi for l'Université des Montagnes but did not teach these courses myself. I was requested by UdM's Dean of Science and Technology to write syllabi for all Mechanical Engineering courses taught in the 3-year degree program.*

STUDENT MENTORING

GRADUATE RESEARCHERS

- Madi Macias, Space Exploration and Sustainable Development, ASU (2021-2023)
- Amanda Kehrberg, Space Exploration and Sustainable Development, ASU (2023-2024)

UNDERGRADUATE RESEARCHERS

- Zane Fleming, Space Exploration and Sustainable Development, ASU (2024)
- Krystian Majchrzak, Space Exploration and Sustainable Development, ASU (2024)
- Elizabeth Garayzar, NASA Space Grant / SpaceHACK for Sustainability, ASU (2023-2024)
- Lindsey Tober, NASA Space Grant / Space for Humans, ASU (2023-2024)
- Oceane Ingram, NASA Space Grant / SpaceHACK for Sustainability, ASU (2023-2024)
- Matthew Marquez, NASA Space Grant, ASU, with Lance Gharavi (2023-2024)
- Amy Manzanero, Space Exploration and Sustainable Development, ASU (2023-2024)
- Amber Lucky, Space Exploration and Sustainable Development, ASU (2023-2024)
- David Mickelson, SpaceHACK for Sustainability, ASU (2022-2023)
- Bo Manuszak, Space Exploration and Sustainable Development / SpaceHACK for Sustainability, ASU (2021-2023)
- Malaika Malik, Space Exploration and Sustainable Development, ASU (2021-2023)
- Sarthak Bhardwaj, Space Exploration and Sustainable Development, ASU (2021-2023)
- Tasha Coelho, Space Exploration and Sustainable Development, ASU (2021-2022)
- Rosemary Ferreira, Global Space Tech, ASU (2022)
- Samantha Rodriguez, Global Space Tech, ASU (2022)
- Spencer Lunsford, Global Space Tech, ASU (2022)
- William Bauknecht, Global Space Tech, ASU (2022)
- Bianca Michaud, Global Space Tech, ASU (2022)

UNDERGRADUATE ENGINEERING CAPSTONE PROJECTS

- Kayla Zeien, Alexia Kamau, Daniel Bhella, and Jonathan Planten: Uterine balloon tamponade, ASU (2021)
- Ben Yonke and Hussein Menkam: Shea butter rotating press, UdM (2019-2020)
- Tchuisseu Dallis: Animal feed pelletizer, UdM (2019)
- Bobby Tsasse: Milk candy caramelizer, UdM (2018)
- Brice Djomo and Rudy Njeujip: Manual brick press, UdM (2018)
- Bugam Joel and Xavier Mbianga: Sawdust briquette press, UdM (2018)

OTHER UNDERGRADUATE MENTORING

- Sadie Cullens and Noelle Geddis, Geiger counter, NASA RockOn! Sounding Rocket Program, ASU (Launched Aug 17, 2023) https://news.asu.edu/20230831-space-unleashed-asu-launches-students-nasas-rock-program

COMMUNITY SERVICE

Community Consulting Teams, non-profit strategic management consulting – **Atlanta, GA** **Oct 2011 – May 2015**

Decatur Cooperative Ministry

• Worked with leadership to align communications with organization's vision & improve communication with target audiences.

Renovacion Conyugal (non-profit that educates Latino families on family dynamics)

• Developed a marketing strategy as part of their 3-year strategic plan, which refocused fundraising efforts on a smaller number of profitable events, thus freeing up Executive Director's time to focus more on running the organization.

Maya Forest/SATIIM (a Belize-based non-profit focused on indigenous peoples)

• Developed a Go-to-Market Strategy to market and sell value-added, sustainable timber products, which led to successful implementation, raising income levels amongst an indigenous group in Belize.

SOCIAL BUSINESS

Sunrise Holdings, intentional housing community – **Atlanta, GA** **Nov 2011 - Present**

Co-founder, Managing Member

• Renovated three dilapidated houses in one of the worst neighborhoods in Atlanta, with the goal of creating an intentional, multi-cultural community, inviting people from different socioeconomic backgrounds, educational levels, and races to work to building up the surrounding neighborhood.

Tree for Life, Cameroonian tree plantation – **Adoumri, Cameroon** **Sept 2017 - Present**

Co-founder

• Founded a tree plantation that protects the environment of the Sahel region of Cameroon by planting fast-growing trees to curb illegal deforestation by saturating the firewood market with efficiently and sustainably harvested wood.

SKILLS

Engineering: AutoCAD + Inventor/Fusion360. CATIA. FEA.
Machining: Mill. Lathe. CNC. 3D Printer.
Programming: C++. Visual Basic. MatLab. R.
Audiovisual: Adobe Creative Suite.
Social Science: Dedoose. Netlogo. Gephi. VOSviewer.
Methodology: Historical Method. Grounded Theory. Agent-Based Modeling. GIS. Longitudinal Social Network Analysis. Public Value Mapping.
Languages: **English** (Native). **French** (Fluent). **Spanish** (Intermediate). **Fulfulde** – West Africa (Fluent)