# JOSHUA E. LAMBERT, PhD

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## Work Experience

**Senior Machine Learning Engineer**                                               2022 – Current
*Factset*
  - Construct and manage a scaled graph product that has hundreds of millions of nodes and billions of relationships.
  - Designed and architected LLM-based GenAI solutions on top of multi-faceted data products for the financial sector.

**Senior Consulting Data Scientist**                                               2015 – Current
*Cypress Synergy LLC*
  - Forecast turnout and favorable voter identification in election campaigns. Manage teams aimed at mobilization efforts.
  - Provide a range of data services to both public and private sector clients including DB architecture design, web-scraping, and ML/NLP applications.
  - Founded and established *Cypress Synergy LLC* for statistical and data-driven strategic growth.
  - Provide mentorship and developmental workshops to aspiring quantitative scholars and data scientists pro-bono.

**Machine Learning Engineer, NLP**                                                 2021 – 2022
*SparkCognition Government Systems*
  - Design and implement AI-NLP solutions for defense customers across a range of sectors.
  - Generate scalable piplenes for vectorization and search functions in the NLP space.
  - Deploy DeepLearning tools for nuanced contextulization of unstructured data.

**ML/NLP Data Scientist - Postdoctoral Scholar**                                   2020 – 2021
*National Center for Integrated Coastal Research*                    University of Central Florida
  - Led a team of researchers in the design of a conceptual framework for distilling cross-sectional and longitudinal variation and subsequent model deployment.
  - Implemented NLP pipeline including NN architecture and out-of-sample two-step ensemble classification of determinants for coastal adaptation strategies to climatic conditions.

**Research Associate**                                               University of Central Florida
*Intelligence Community's Center for Academic Excellenc*                            2016 – 2019
*Kurdish Political Studies Program*                                                 2020
  - Managed team of researchers on the design and development of a longitudinal, cross-national leader speech materials database. Applied NLP and machine learning methods.
  - Created website for the open access of data at: [Psychological Characteristics of Leaders (PsyCL).](Psychological Characteristics of Leaders) Selected to present research at International Society for Political Psychology conference.
  - Deployed linear models to uncover trends in historical effects of religious characteristics on global instances of civilian victimization, terrorism, and episodes of genocide. General anomoly detection in the localized conflict space.

**Researcher**                                                                     2018
*Secure Fisheries*                                                         One Earth Future
  - Collaborated with interdisciplinary scientists on design and implementation of the Fisheries Conflict Database. Managed SQL database, conducted natural language processing and data analysis using Python.

## Education

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| **PhD** University of Central Florida, Security Studies | 2016 – 2020 |
| **MA** University of New Orleans, Political Science | 2014 – 2015 |
| **BA** Auburn University, Political Science | 2010 – 2014 |

## Professional Skills

**Technical Skills:** Python, PyTorch, AWS, Azure, Elastic Stack, SQL/NoSQL, ArcGIS, Git

**Theoretical Skills:** LLM, GenAI, Machine Learning, Natural Language Processing, Deep-Learning, Hypothesis Testing, Time Series, Econometric modeling, Agile methodology, DB Management, Spatial Analysis, Research Design, Survey and Experiment Design, Experienced oral and written communicator.

**Team and Leadership Skills:** Collaborative publications with interdisciplinary scientists. Managed teams of researchers, guided project design and implementation of data collection and analysis. Held several elected leadership positions including Student Government Vice President.

# Publications

**6 peer-reviewed** | **1 book chapter** | Google Scholar
**2 policy reports** | **4 popular articles**

13. Cullen Hendrix, Sarah M. Glaser, **Joshua E. Lambert**, and Paige Roberts, "Global climate, El Niño, and militarized fisheries disputes in the East and South China Seas", *Marine Policy*, **2022**.

12. Mark Schafer and **Joshua E. Lambert**, "Psychological Characteristics of Leaders (PsyCL): Introducing a New Data Set", *Foreign Policy Analysis*, **2022**.

11. Sarah M. Glaser, Colleen Devlin, **Joshua E. Lambert**, and Ciera Villegas, "The Causes and Consequences of Fisheries Conflict around the Horn of Africa", *Journal of Peace Research*, **2021**.

10. Christopher M. Faulkner, **Joshua E. Lambert**, Bruce M. Wilson, and Matthew S. Faulkner, "The Human Right to Water and Sanitation: Using Natural Language Processing to Uncover Patterns in Academic Publishing" *Water*, **2021**.

9. **Joshua E. Lambert**, Graham Epstein, Jennifer Joel, and Jacopo Baggio. "Identifying Topics and Trends in the Study of Common-Pool Resources Using Natural Language Processing", *International Journal of the Commons*, **2021**.

8. **Joshua E. Lambert**, Mark Schafer, Stephen Walker, and Collin Kazazis, "Presidential Personalities and Operational Codes: Learning Effects and Midterm Congressional Election Results", Book Chapter in - *Operational Code Analysis and Foreign Policy Roles Crossing Simons Bridge*, **2021**.

7. **Joshua E. Lambert** and Anthony Licciardi,"What belief in extraterrestrial visitors to Earth reveals about trust in elections", *The Conversation*, **2021**.

6. Christopher M. Faulkner, **Joshua E. Lambert**, and Jonathan Powell, "Reassessing Private Military and Security Company(PMSC) 'Competition' in Civil War: Lessons from Sierra Leone" *Small Wars and Insurgencies*, **2019**.

5. Eric Keels, Jay Benson, John Filitz, and **Joshua E. Lambert**, "Reassessing Rebellion", *One Earth Future*, **2019**.

4. Eric Keels and **Joshua E. Lambert**, "Why Sudan's deadly crackdown on protesters could escalate in coming weeks", *The Conversation*, **2019**.

3. Christopher Faulkner, **Joshua E. Lambert**, and Jonathan Powell, "Peeling back the layers on the role of private security companies in Africa", *The Conversation*, **2019**.

2. Sarah M. Glaser, Colleen Devlin, **Joshua E. Lambert**, Ciera Villegas, and Natasia Poinsatte, "Fish Wars: The Causes and Consequences of Fisheries Conflict in Tanzania", *One Earth Future*, **2019**.

1. Clayton Besaw, **Joshua E. Lambert**, and Jean-Pierre Larroque, "Rulers, Elections, and Irregular Governance (REIGN) Showcase: Part I", *One Earth Future* , **2018**.

**4 Working manuscripts**, (2 under review)

4. Joseph F. Hair, Jr., Ermanno Affuso, **Joshua E. Lambert**, Michail Tsagris, Bradford Tuckfield, "Contemporary Business Analaytics"

3. Christopher Faulkner, **Joshua E. Lambert** and Rebecca Schiel, "Coup-Proofing, Mutinies, and Private Military and Security Companies", *Under Review*

2. Güneş Murat Tezcür and **Joshua E. Lambert**, "Global Patterns in Religion and Large Scale Violence"

1. **Joshua E. Lambert**, "Them Belly Full but We Hungry: Food Insecurity as an Elite Motivator for Coups"

# Teaching

**Global Scholar**
University of South Alabama, Mobile | Mitchell College of Business

**ML/AI for Business Analaytics** Fall 2023
PhD Course

**Adjunct Lecturer/Instructor of Record** (e.g., [Jupyter notebook.](#))
University of Central Florida, Orlando | School of Politics, Security, and International Affairs

**GIS for Political Analysis** Fall 2019, Spring 2020
Student evaluation: Course = 4.71/5 | University Average = 4.16/5

**Graduate Teaching Assistant**
University of Central Florida, Orlando | School of Politics, Security, and International Affairs

Courses included: 2016- 2018
*International Relations, Comparative Politics, Geography, Political Science, Public Policy*
Faculty evaluation: Very Satisfactory

# Presentations

**15 invited conference presentations**

○ 2022 - International Studies Association (Nashville, TN)

○ 2021 - International Studies Association (Remote), American Political Science Association (Seattle, WA)

○ 2020 - International Studies Association (Cancelled - Honolulu, HI)

○ 2019 - International Studies Association (Toronto, CAN)

○ 2018 - Southern Political Science Association (New Orleans, LA)

○ 2017 - Florida Political Science Association (Orlando, FL); Southwestern Political Science Association (Austin, TX); International Society of Political Psychology Association (Edinburgh, SCT); International Studies Association South (Orlando, FL)

○ 2014 - Alabama Political Science Association (Montgomery, AL); Southern Political Science Association (New Orleans, LA)

○ 2013 - Alabama Political Science Association (Tuscaloosa, AL)

# Awards, Outreach and Service

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| ViEWS Conflict Forecasting Competition invited participant – Uppsala, SWE | 2020 |
| PRIO Conflict Trends Course participant – Oslo, NOR | 2018 |
| President, Political Science Graduate Student Association (UCF) | 2018 - 2019 |
| SciPy conference workshop participant – Austin, TX | 2018 |
| GEOINT Symposium participant – Tampa Bay, FL | 2018 |
| DIA Summer Seminar participant – Washington D.C. | 2017 |
| UCF Political Science Colloquium presenter – Orlando, FL | 2017 |
| Florida Political Science Graduate Paper Winner – Orlando, FL | 2017 |
| ISPP Summer Methodology Academy participant – Edinburgh, SCT | 2017 |
| UNO Student Government Senator of the year – New Orleans, LA | 2015 |
| Vice President, Student Government Association (UNO) | 2015 |
| Member, Dean Search Committee (UNO) | 2015 |
| Senator, Student Government Association (UNO) | 2014 - 2015 |