Lingyu (Jack) Fuca

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EDUCATION

Pennsylvania State University, University Park, PA, USA, 2028 (expected)
Ph.D. in political science and social data analytics (expected)

New York University, New York, NY, USA, 2022
M.A. (pre-PhD track), Political Science (computational social science and political economy)
GSAS Scholarship, 2021-2022
Thesis: "*Predicting Behaviors with Little Information: A Signaling Game Model on Rebellion and Repression,*" advisor: Prof. Congyi Zhou

George Washington University, Washington, DC, USA, 2020
M.A., Political Science (political methodology and comparative politics)
Dean's Fellowship Award, 2018-2019

Beijing International Studies University, Beijing, China, 2017
Bachelor's degree (*Summa Cum Laude*), Diplomacy and International Relations
BISU Scholarship Merit, 2014-2015
Outstanding Thesis Award, 2017
Thesis: "*Free Riders in International Alliance: A Case Study on post-Cold War US-Japan Alliance Evolving in a Stag-Hunt Game,*" advisor: Prof. Yifeng Guo

RESEARCH INTERESTS

Data Science/Computational Social Science
Machine learning, Bayesian methods, text-analysis, causal inference (big-data approach), predictive modeling, network analysis, multi-agent methods

Methodologies for Social Science
Causal inference (theory/model approach), formal theory, complex dynamic systems methods, simulations for game theory

Predictive Human Behaviors in Complex Environments (Political Economy)

Coalition-building, political risk analysis (domestic and international), regime transformation and political legacies, global political impacts on financial markets, strategic negotiation

RESEARCH EXPERIENCE

Pennsylvania State University (2023-)

Lab Assistant at Governance and Administration in Networks (GAiN) Lab

Mentor: Prof. Bruce Desmarais

- Conduct research for publications, focusing on network analysis, political opinions, voting behavior, political ideology, political misinformation, and so on
- Build machine learning algorithms for predicting human behaviors in complex environments with incomplete information
- Teamwork for publications

New York University (2021-2022)

- Conduct research on coalition building and the effect of information on human behaviors
- Selected research works:
    - *"Gains, Costs, and Party Coalitions"*
    - *"Theory of Moves and the China-US Trade War,"* advisor: Prof. Steven Brams
    - *"Is Complete Information Necessary for Theory of Moves?"* advisor: Steven Brams
    - *"A New Refinement for Condorcet Paradox"*

Extra Methodological Trainings at NYU

- Data science bootcamp, provided by NYU Tandon School, Fall 2022
- Programming bootcamp (LeetCode), provided by NYU Tandon School, Fall 2022
- Quant method workshop (causal inference and DS), Department of Politics, Fall 2022
- PE workshop (formal theory), Department of Politics, Fall 2022

George Washington University (2018-2020, OPT 2020-2021)

Research Assistant for Prof. Mike Mochizuki, 07/2020-01/2021, on multiple latest factors affecting Sino-Japanese relations, including One Belt One Road policy, Taiwan, Japan's Indo-Pacific strategy, and the US interference

Selected Research Works on East Asian politics, China politics, US-China relations

- *"Under-Institutionalization of Party and Party System in South Korea after Three Kims Era"*

- "*Xi Jinping's Foreign Policy on National Security and Its Impacts on the US-China Relation,*" advisor: Prof. Robert Sutter
- "*Fluctuating Military Expenditure and the Balance of Threat Theory—Two Japan Cases,*" advisor: Prof. Mike Mochizuki
- "*Factions in Japan's LDP, a Stabilizer,*" advisor: Prof. Mike Mochizuki
- "*Trust toward Non-Governmental Organizations and the Scale of Social Unrests in China and South Korea*"
- "*The Comparison between the American Foreign Policy toward China during Obama and Trump Administrations*"
- "*China's Foreign Policy on Climate Change—A Case Study of China and the United Nations Summits on Climate Change*"
- "*Coexistence of Strategic Rivalry and Potential Collaborative Partnership: Policy Assessment on US and China's Approaches to Development Assistance and Aid, and Their Influence on US-China relations*"
- "*The Prospective Patterns of China's Renminbi Internationalization*"
- "*Competition for 5G Patent Dominance, and Huawei's Strategy on 5G*"
- "*How Local Nonprofit Organizations Affect Government Accountability—A Study on Rural Immigrants to Urban Areas in China,*" advisor: Prof. Michael Miller

Beijing International Studies University (2013-2017)
China National Academic Research Program for Undergraduate Students, first author and program manager, "*On the Characters of British Political Institutions, A Case Study on Scottish Independence Referendum,*" **granted with ¥10,000 national research funding**, 2014-2015

PRESENTATIONS

Method Workshop at political science department in University of Minnesota, Nov. 2022
"Predicting Behaviors with Little Information: A Signaling Game Model on Rebellion and Repression," via zoom

China-Japan-S. Korea Youth Forum held by the United Nations Associations of PRC, Japan, and ROK
- "*Methods to Improve the Trilateral Relationship among China, Japan and South Korea by the Efforts of the Youths, and Solutions to the Problems Left Over by History,*" Gyeongju, ROK, 2015
- "*Methods to Improve the Trilateral Relationship among China, Japan and South Korea by the Efforts of the Youths, and Feasible Solutions to Maintain East Asia in Peace and Security,*" Fukuoka, Japan, 2016

TEACHING ASSISTANT EXPERIENCE

<u>**Pennsylvania State University (2023-)**</u>
<u>Teaching Assistant</u> for PLSC 14 Introduction to IR
Supervisor: Prof. James Piazza
- Guest lecture on developmental theories (IPE) on 10/18/2023

Beijing International Studies University (2013-2017)
<u>Teaching Assistant</u> for American Foreign Policy Class (in English only)
Supervisor: Prof. Yifeng Guo

WORK/INTERN EXPERIENCE

<u>Internship</u> at Office of the City Clerk (Anna Valencia), Chicago City Hall, 121 N LaSalle St, Chicago, IL, the USA, 60602, Feb. 2017—Mar. 2017

AWARDS AND LEADERSHIP

<u>China National Diplomatic Courtesy Champion</u>, China Foreign Affairs University
- Won national 3rd prize
- Leader of the team, representing Beijing International Studies University to participate in the national champion

<u>The Model United Nations Association</u>, Beijing International Studies University
- Participated as delegates/observers of different nations/international organizations, and served as Head of Dais, Academic Advisors, and Conference Instructors in numerous MUN conferences concerning global security and cooperation, regional peace and developments, historical issues, refugee and human right crises, multilateral trades, food security, medicine, and education, from 2013 to 2018, across mainland China
- Director of Academic Department, Sept. 2014—Jun. 2015
- President, Sept. 2015—Jun. 2016
- Secretary General of Multilingual (all the UN formal working languages) 7th Northern China MUN Conference, **successfully applied for and granted with ¥60,000 from undergraduate social practice funding program**, designed committees and academic topics, determined division of work, guided conference preparations including tea break food and drinks, conference sites, delegates' and Dais' ID cards, guidebooks, hotel accommodations, medical services etc., made budget and final account, successfully

invited 140 delegates from around 50 universities in Northern China, and recruited 16 members as Dais, in May 2016

- Honorary president, Sept. 2016—Jun. 2017

The Diplomatic Skills Seminar, Beijing International Studies University

- Director of Academic & Research, organized weekly studies and searched and prepared academic materials for seminars, Sept. 2014—Jun. 2015
- President, guided directors and freshmen, determined division of work, and manage daily affairs, Sept. 2015—Jun. 2016
- Honorary President, supervised daily affairs managements, Sept. 2016—Jun. 2017

SKILLS

Languages: Manchu, Mongolian, Chinese (Mandarin, Shanghainese), English, Korean (only for historical and East Asian politics research), Japanese (only for East Asian politics research)

Software/Programming: R, Stata, Latex, Python, SQL, LeetCode (basic)