

Dana Annalise Golden

PHD CANDIDATE ECONOMICS · STONY BROOK UNIVERSITY

700 Health Sciences Drive, Stony Brook, NY 11790

✉ dana.golden@stonybrook.edu | 🏠 <https://jgolden36.github.io/> | 💼 <https://www.linkedin.com/in/dana-golden-factor/>

Education

Stony Brook University

Stony Brook, New York

DOCTOR OF PHILOSOPHY, ECONOMICS

2021 - 2026

- Advisors: Yiyi Zhou and Steven Stern
- Certificate in Artificial Intelligence

Georgia Institute of Technology

Atlanta, Georgia

MASTER OF SCIENCE, ANALYTICS

2020 - 2022

Concentration: Machine Learning

Georgia Institute of Technology

Atlanta, Georgia

MASTER OF SCIENCE, ECONOMICS

2018 - 2019

Georgia Institute of Technology

Atlanta, Georgia

BACHELOR OF SCIENCE, ECONOMICS

2016 - 2018

Professional Experience

2025 **Research Analyst**, Food and Resource Economics, University of Florida

2023-2025 **NSF Funded Research Fellow**, BIAS-NRT: Detecting and Addressing Bias in Data, Humans, and Institutions

Summer

2023-May **Graduate Research Assistant**, Spellman High Voltage Power Electronics Lab

2024

2023 **Graduate Research Assistant**, Eva Carceles-Poveda

2022-2024 **Writing Center Tutor**, Stony Brook Writing Center

Summer

2023 **Data Scientist Intern**, Bureau of the Fiscal Service

2023

Summer

2023 **Economist Intern**, USDA Economic Research Service

2023

2022-2023 **Microeconomics PhD Tutor**, Stony Brook Economics Department

Summer

2022 **Economist intern**, Federal Energy Regulatory Commission

2022

2019-2021 **Agricultural Economist**, USDA Economic Research Service

2017-2019 **Peer Tutor**, Georgia Tech Athletic Association

Summer

2017 **Financial Management Student Intern**, Defense Finance and Accounting Service

2017

Job Market Paper

Investment and the Transfer of Power: Dynamic Effects of Transmission in Electricity Markets.

Renewable resources are required for energy transition, but not all locations have abundant renewables. Additional transmission provides a potential solution and allows for transfer of renewable power from renewables-rich to renewables-poor areas. I examine the impacts of increased long-distance transfer of electricity on the investment choices of fossil fuel and renewable generators. I detail and estimate a dynamic model for generator behavior consisting of a short-run optimal-dispatch problem for the operations market with consideration of the effects of line losses and transmission constraints between zones and a long run dynamic game for the capacity market. I run counterfactual experiments to analyze the impacts to consumer welfare, emissions, and reliability as well as incentives for investment in renewable energy.

Publications

Deepi Singh, Dana Golden, Gaurav Bhansali, Ali Anwar, Shreepooja Singh, Fang Luo, Yiyi Zhou. 2023. Offshore Horizons: HVDC Wind Farms - Exploring Techno-Economic Dimensions. (IEEE Access)

High Voltage Direct Current (HVDC) technology is a cornerstone of efficient Offshore Wind Farm (OWF) power transmission. This review examines HVDC OWF connections through four interlinked dimensions: economic considerations, connection topologies, converter designs, and technical modeling. It begins with an in-depth economic analysis, evaluating cost-effectiveness, reliability, and market dynamics, focusing on investment, operational costs, and lifecycle expenses. Building on this foundation, the review explores various collection and transmission architectures, highlighting their technical trade-offs, and evaluates power converter designs for efficiency, reliability, and offshore adaptability. Finally, advanced modeling and simulation techniques are reviewed to optimize system performance, enhance reliability, and balance computational efficiency. Together, these insights provide a holistic framework for sustainable and economically viable offshore wind energy transmission systems.

Working Papers

Non Linear Dividend Taxation and Shareholder Disagreement. (with Alexis Anagnostopoulos, Eva Carceles-Poveda, and Gabriel Mihalachel)

In 2020, nearly 50% of U.S. dividend income faced a different marginal tax rate than the top bracket, with the tax wedge from differential dividend taxation fluctuating significantly since 1983. This has unintentionally fueled shareholder disagreement over firm investment levels. Using ISS data, we show that such disagreement is more pronounced for investment and financial policies than for issues like director elections. To explore these dynamics, we develop a heterogeneous agent, general equilibrium model where differential dividend taxation generates shareholder conflict over firm decisions. We illustrate how voting can resolve this while preserving price-taking behavior and competitive, forward-looking investment. Changes in the median shareholder—driven by both shocks and capital dynamics—amplify capital fluctuations, increasing investment and stock price volatility.

Works in Progress

The International Determinants of Shareholder Disagreement. (with Alexis Anagnostopoulos and Eva Carceles-Poveda)

Industrial Policies in a Market with Environmental Externalities: Evidence from the Chinese Solar Panel Industry. (with Yiyi Zhou and Xiangjun Ma)

Commodity Markets LLM-based Futures Forecasting. (with Dikshya Mohanty, and Khushboo Singh.)

Stochastic optimal control for renewable energy generation augmented by energy storage systems. (with Deepi Singh)

Conference Presentations

Eva Carceles-Poveda, Alexis Anagnostopoulos, Dana Golden, and Gabriel Mihalachel. Non-Linear Dividend Taxation and Shareholder Disagreement 2025. Society for Economic Dynamics.*

Dana Golden, Dikshya Mohanty, and Khushboo Singh. 2025. Commodity Markets LLM-based Futures Forecasting. Southern Agricultural Economics Association.

Dana Golden, Dikshya Mohanty, and Khushboo Singh. 2024. Transformers but not the Kind You're Thinking of: Commodity Market Forecasting using Natural Language Processing. Economics & Computation. Poster.

Eva Carceles-Poveda, Alexis Anagnostopoulos, Dana Golden, and Gabriel Mihalachel. 2024. Non Linear Dividend Taxation and Shareholder Disagreement. Midwestern Macro.*

Dana Golden. 2020. Can an AI figure out whether an AI can take my job? Structural Blueprint for AI-generated Academic Papers in Economics. AAEA.

Dana Golden. 2020. Solving the Basis Aggregation Problem. AAEA. Poster.

Dana Golden. 2020. Agricultural basis from a game theoretic perspective. AAEA. Poster.

Government and Industry Publications

Comparative Study & Networked Benchmarking of Power Electronics Architectures for HVDC OSW Energy Integration: May 2024

Oilseeds Outlook Report: May 2020-July 2021

Wheat Outlook Report: December 2020-January 2021

Awards, Fellowships, & Grants

2024-2025	OVPB Seed Grant (with Eva Carceles-Poveda and Ria Rajiv Shah) , Stony Brook University Office of Proposal Development	\$ 40,000
2023-2025	NSF BIAS-NRT Research Fellowship , National Science Foundation	\$ 74,000
2021-2026	Department of Economics Diversity Fellowship , Stony Brook University Economics	\$ 75,000

Teaching Experience

Fall 2025	Economics of Environmental and Natural Resources , Instructor	
Summer 2025	Data Science and Machine Learning , Instructor	
Winter 2025	Economics of Environmental and Natural Resources , Instructor	
Summer 2024	Data Science and Machine Learning , Teaching Assistant	
Fall 2023	Economics and Sustainability , Instructor	
Spring 2023	Economics and Sustainability , Instructor	
Spring 2023	Econometrics (graduate) , Teaching Assistant	
Fall 2022	Mathematical Statistics (graduate) , Teaching Assistant	
Spring 2022	Introduction to Economics , Teaching Assistant	
Fall 2021	Introduction to Economics , Teaching Assistant	
Spring 2019	Philosophy of Science, Technology, and Human Values , Teaching Assistant	Georgia Tech

Outreach & Professional Development

SERVICE AND OUTREACH

2025	IEEE Access , Reviewer
2022-2023	Graduate Student Organization , Chair of Board of Appeals
2024	Stony Brook University Game Theory Conference , Volunteer
2022-2023	Economics Graduate Student Departmental Grievance Committee , Student Representative
2021-2025	Graduate Student Organization , Economics Senator
2020-2021	Books Not Bombs , Tutor
2020-2021	AEA LGBT Mentoring Program , Mentor
2017-2022	Georgia Tech and Archer high school debate teams , Debate Judge
2019	Pipeline Project , Mentor

Skills

- **Programming and Scripting:**
- Python (NumPy·Pandas·GeoPandas·PyTorch·TensorFlow)
- Julia, R, Matlab, Stata, SQL (PostgreSQL/BigQuery)

- Scala, Dask, &PySpark / Spark SQL
- Fortran & CUDA accelerated JAX
- JavaScript (D3/Plotly) & Tableau
- **Machine Learning / AI:**
- Supervised & unsupervised ML (Isolation Forest, PCA, SVM; ARIMA/LSTM time series)
- Reinforcement Learning (Rllib, Gym, deep Q-learning)
- Transformers, Computer vision, & LLM fine tuning (HuggingFace, LoRA/PEFT, OpenCV, NLTK)