



Andy Theocharous

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ENERGY AND ENVIRONMENTAL ECONOMICS, INC.
Consultant

San Francisco, CA

Andy Theocharous supports E3's Asset Valuation practice area. He is a skilled developer, creating the Python-based machine learning tools to run E3's market price forecasts, including for nodal pricing and ancillary services. He has worked across North America, from CAISO to ERCOT to eastern markets, and has particular expertise in energy storage valuation. Andy has also worked on various public-facing communications, including a whitepaper on storage economics in Alberta and articles on the Inflation Reduction Act and market events in ERCOT's electricity market.

Andy joined E3 after completing a graduate degree studying public policy with a focus on data science and climate at Harvard University. His latest work experience is for the International Crisis Group where he helped them quantitatively understand the impact of climate change on conflict using data techniques. In addition to his graduate degree, Andy holds a B.A. in Economics and Global Studies from the University of California, Berkeley.

Select E3 projects include:

Confidential Battery Developer, Diligence Support (2024). Conducted a due diligence study for a battery developer building in California and Texas. Ran the optimization model, performed a storage revenue analysis, and provided a market overview for the client.

Confidential Hydrogen Producer, Clean Electricity Procurement Analysis (2024). Guided a hydrogen producer through the opportunities presented by 45V, helping them understand how to meet load demand and procure new generation from both a cost and emissions perspective. Ran E3's REMATCH model, which forecasts the required energy buildout for a given electricity demand, and presented the resulting scenarios to the client.

Various Confidential Battery and Solar Investors, Customized Forecasting (2023 – ongoing). Developed E3's in-house methodology of nodal forecasting to project revenue streams for multiple clients making multimillion-dollar investment decisions.

California Public Utilities Commission (CPUC), Battery Supply Chain Analysis (2023). Conducted market research on demand for batteries, analyzing a variety of projections and existing and planned projects, to understand how California can meet its clean energy procurement mandate for clean energy storage.

Western Market Exploratory Group (WMEG), Cost Benefit Market Study Follow-Up (2024). Performed economic analysis of various market scenario interconnections for a series of utilities in the Pacific Northwest and the southwest. Evaluated the potential production cost savings from formation of new day-ahead markets, using a post-processing logic to simulate benefits and costs to each utility under a set of different scenarios.

SALESFORCE, INC.*Consultant (Graduate Capstone Project)*

Washington, DC

November 2022 – April 2023

- Conducted interviews with state agents, digital experts and end-users on the digital experience of benefit services.
- Analyzed data that detected efficiency and economic impacts of Salesforce modernization of benefit delivery systems.
- Authored a 45-page report communicating findings and recommendations via visualizations and economic analysis.

HARVARD KENNEDY SCHOOL OF GOVERNMENT*Graduate Student Researcher*

Cambridge, MA

January 2022 – May 2023

- Constructed a machine learning model using XGBoost that predicted incidence of conflict using climate variables.
- Constructed an AI-driven computer vision model to identify drought using satellite imagery in Kenya.
- Led sections for data visualization, econometrics & machine learning tools to graduate and college students.
- Worked with IMF staff to extract causal effects of exposure of the renminbi to international trade.

INTERNATIONAL CRISIS GROUP*Data Consultant*

New York, NY

January 2022 – September 2022

- Presented maps and visuals show the climate extremes in various conflict countries to UN officials.
- Owned the data extraction and manipulating process for remote sensing data.
- Presented data on climate extremes for country analysts for a variety of geographies like Mexico, Mekong and others.
- Assisted in the construction of panel regression models to extract the impact of conflict on climate change.

JUSTANSWER LLC*Data Analyst*

San Francisco, CA

March 2021 – August 2021

- Gained ownership CRM-related data and platforms and built live Power BI dashboards to monitor marketing progress.
- Synthesized large data using SQL and Google Analytics to explain the impact of marketing changes to executives.
- Worked with engineers, UX designers and product managers to design and execute A/B tests to test our hypotheses.

CENTER FOR EFFECTIVE GLOBAL ACTION*Research Associate*

Berkeley, CA

March 2021 – 2021

- Analyzed and visualized survey data from an RCT from 3,000 households for over 150 variables using R & STATA

- Presented the results and implications of the experiment to a non-technical audience at the World Bank

ARMED FORCES OF THE REPUBLIC OF CYPRUS

Sergeant (Mandatory Military Service)

Nicosia, CYPRUS
July 2015 – January 2017

- Conducted daily analysis of 100 data points of adversary activity to inform strategic defense decisions.
- Led 15 personnel on a military stronghold outpost on the line of ceasefire overseeing training and mission exercises.

Education

Harvard University, Kennedy School of Government
M.P.P., Data Science and Climate Change

Cambridge, MA
May 2023

University of California, Berkeley
B.A., Economics and Global Studies

Berkeley, CA
December 2020