William Taylor

wtaylor@acadiacenter.org ❖ (860) 246-7121 ext. 203

Relevant Skills & Programs

Python (Numpy, Pandas, Geopandas, GDAL, Scikit-Learn, Keras), R, ArcGIS, Matlab, Microsoft Office Suite

---

Work Experience

Acadia Center, Rockport, ME –

Strategy Director, Infrastructure and Resilience, July 2025-present

- Engage with other Acadia Center leadership to develop strategic priorities and inform the development of regional programs focused on tackling large-scale climate, clean energy, and energy justice challenges
- Develop comprehensive approaches to improve affordability while addressing challenges related to transportation, housing, infrastructure, resilience, and clean air and water
- Analyze data and develop fact sheets and other educational materials related to energy cost drivers
- Lead initiative to develop community energy projects in the Northeast
- Develop an initiative that delivers a meaningful vision of the future of the electric grid, demonstrating how policies and existing technologies fit together

Electric Power Research Institute (EPRI), Palo Alto, CA –

DER Integration Strategist, November 2023-July 2025

- Performed research related to distribution-connected DER integration and best practices
- Developed papers, hosted working groups, and conducted virtual workshops related to: the equitable allocation of hosting capacity, non-wires alternatives, DER grid services to improve project economics and improve grid reliability, and the value of resilience
- Served as cost-benefit analysis lead for an investment prioritization guidance whitepaper and several utility case studies on Climate READi; an initiative to develop a framework for utilities to account for future climate and hazards when performing grid planning activities across generation, transmission, and distribution

Connecticut Public Utilities Regulatory Authority (CT PURA), New Britain, CT –

Associate Rate Specialist - Clean & Affordable Energy Group, June 2023-October 2023

- Oversaw technical staff and lead meetings pertaining to clean energy programs in Connecticut
- Developed machine learning residential solar deployment forecasting model
- Led consultants in developing a cost-benefit analysis tool for the clean energy programs in Connecticut

Rate Specialist - Clean & Affordable Energy Group, January 2022-June 2022

- Served as lead technical staff for statewide programs on electric storage, residential and non-residential solar tariffs, and mid- and heavy-duty EV charging, with a focus on equitable deployment in each program
- Served as lead technical staff for annual Clean Energy Program Report
- Drafted technical reports, regulatory decisions, correspondence and motion rulings
- Developed interrogatory questions to obtain pertinent information for making regulatory decisions, ran technical meetings to gain diverse perspectives, used data to develop insights for communicating existing program progress and inform decisions
- Perform cross examination as a subject matter expert during rate cases

University of Connecticut, Storrs, CT – *Graduate Research Assistant/Fellow,* August 2019-August 2023

- Performed research, mentored new graduate students, developed and presented materials for meetings with funders and conferences, wrote grant proposals

Pratt & Whitney, East Hartford, CT – *Mechanical Design Engineer, Externals,* June 2017-August 2019

- Designed commercial jet engine components as part of green engine program to reduce fuel consumption and noise pollution, was a member of the design team for a patented bleed air ducting system
- Performed build support engineering, troubleshot and tested for root cause analysis, performed descriptive analytics using Python to help identify workable solutions
- Performed supplier process validations as the design engineering subject matter expert
- Participated in rapid prototyping and concept development for ducts, tubes, brackets, and electrical harnesses
- Performed design analysis accounting for manufacturability, weight, performance and other constraints

Sikorsky Aircraft, Shelton, CT – *Manufacturing Engineer,* January 2016-June 2017

- Served as lead engineer for fuel probes, responsible for creation of all related process plans
- Interfaced with design to revise and incorporate engineering changes and instructions
- Worked with program engineering group to respond to customer inquiries, traveled to customers to perform material reviews

GlobalFoundries, Malta, NY – *Shift & Process Engineer,* June 2014-January 2016

- As SPC department champion; increased TCP chart maturity from 47% to 100%
- Optimized test wafer recycle processes resulting in $138,000 annual savings through waste reduction
- Troubleshot and performed root cause analysis for tool and process issues, as well as product defect cases

---

Teaching Experience

University of Connecticut, Stamford, CT – *Adjunct Professor*, Fall 2023

- OPIM 5603 Statistics for Business Analytics - Taught advanced exploration of statistical techniques for data analysis, including basic concepts in descriptive and inferential statistics, data organization and visualization, sampling, probability, random variables, sampling distributions, hypothesis testing, linear regression, and logistic regression. Course taught using the R programming language.

University of Connecticut, Storrs, CT – *Teaching Assistant*, Fall 2020

- ENVE 5331 Predictive Analytics for Engineers - Developed lesson videos and Python based homework exercises, held 1-on-1 office hour sessions, provided assistance leading weekly online class sessions, performed grade recording, mentored final project teams.

Education

University of Connecticut, *PhD:* Environmental Engineering, August 2023, GPA: 4.17
University of Connecticut, *Masters:* Business Analytics and Program Management, May 2019, GPA: 4.08
University of Connecticut, Storrs, CT, *Bachelor of Sci:* Mechanical Engineering, May 2014, GPA: 3.51
Concentration: Design & Mfg. Minors: Electronics & Sys, Mathematics
Awards: Honors Scholar, New England Scholar, UConn Civil & Environmental Engr. Pre-Doctoral Fellow

---

Academic/Analytics Projects –

- **UConn Outage Prediction Models (OPMs)** – *Ph.D.*

    - Developed models to quantify the effectiveness of more rigorous vegetation management as a strategy for resilience improvement in the electric grid, from both a statistical and machine learning perspective. The machine learning framework can forecast outages in the electrical distribution network while accounting for vegetation management, and the statistical framework allows for the evaluation of how the effectiveness of tree trimming changes with increased storm severity. These models are of particular use to utilities and municipalities to optimize resilience efforts. The models can further be used with future climate scenarios to understand future resilience and inform long term infrastructure planning. These resilience models are the basis for a patent application on which I am a co-inventor.
- **Community OPM** – *Ph.D.*
    - Developed a model similar to the UConn OPM but using proxies for proprietary utility infrastructure data, allowing us to expand the domain to the entire East Coast of the United States, with a framework that can be expanded nationally. Such a model is useful to understand insurance risk under current and future climate scenarios, and help identify particularly vulnerable areas for hardening strategies, as well as for planning and optimizing regional storm responses. Used explainable AI concepts to allow the examination of how individual outage predictions were made.
- **Wildfire Ignition Prediction Model** – *Ph.D.*
    - Helped develop a high-spatial and daily temporal-resolution wildfire ignition prediction risk, which can be used with future climate models to mitigate risks, as well as for response unit planning and communication to the public about wildfire risk. The model can be integrated with a wildfire spread risk to understand comprehensive wildfire risk and may also be of use to utilities and other companies marketing solutions to wildfire risk mitigation (e.g., AI-based power line vegetation monitoring tools).
- **Underwater Acoustic Benefits** – *Ph.D.*
    - Developed a state-of-the-art machine learning model to use underwater acoustics to measure wind speed and precipitation over the ocean. The technology demonstrates promise for being used to measure these variables while mitigating risk of damage to similar above-water tools, and could be used to improve the accuracy of satellite measurements over the ocean, demonstrating value to companies in the weather and shipping industries, amongst others.
- **Annual Clean & Renewable Energy Reports**– *CT PURA*
    - Developed a series of annual reports on the landscape of renewable energy deployment in Connecticut. The reports include overviews of the statutory programs overseen by PURA, as well as visualizations of data to make progress on topics including deployment levels and employment in the clean energy sector easily interpretable.
- **Troubleshooting Analytics** – *Pratt & Whitney*
    - Used analytics and creative data visualizations to help troubleshoot and identify the root cause of a manufacturing issue.
- **Data Analytics Capstone - Analytic & Dashboard Design –** *Master's*
    - Developed analytics with visualizations to improve company financials through fraud detection and prevention for a Fortune 500 client**.** Identified opportunities for additional training, recommended where to implement new best practices. Python was used for data pre-processing, and Tableau was used to build dashboards.
- **AI and Sustainability** – *Master's*
    - Conducted a literary analysis on the state of AI in energy creation and storage, agriculture and climate modeling**.** Researched five-year trajectory of AI in sustainability with discussion and predictions for one- and five-year developments.
- **Other Projects** – *Master's*

- Convolutional Neural Networks and Image Style Transfer, Cryptocurrency Value Prediction, NLP Tech Tweet Classification, Impact of Rising Healthcare Costs on Utilization of Wellness Programs

---

Awards & Fellowships

ORISE/Department of Energy, stationed at CT PURA in New Britain, CT - *Solar Energy Innovator Fellowship,* October 2021-January 2022

- Developed first annual Clean & Renewable Energy Report
- Helped develop new web pages including one for each of the following offices and units in order to make program information more accessible and engagement with the stakeholder process simpler and more intuitive

University of Connecticut, Storrs, CT

- *Undergraduate* - Honors Scholar, New England Scholar, Academic Excellence Scholarship, H & B Mansley & A Hardy Scholarship, Engineering Scholarship, Allan Brian Glickstein Scholarship
- *Master's* - MSBAPM Scholarship, awarded for outstanding performance

Ph.D. - UConn Civil & Environmental Engineering Pre-Doctoral Fellowship Award

---

Patents & Patent Applications

Watson, P., Anagnostou, E. N., Cerrai, D., Zhang, W., Hughes, W., Taylor, W. O., Bagtzoglou, A. (2024, Feb. 22). Systems and methods for infrastructure resilience estimation and assessment (US Patent Application No. US20240061735A1). U.S. Patent and Trademark Office.

Zysman, S. H., Blume, K. D., Anderson, J. H., Teufel, H., Clauson, J. W., Campbell, X., Taylor, W. O., Kaiser, G. A., Milenkovic, K., Rhodes, M. C., & Dolma, T. (2023, January 10). Engine Bleed Air Ducting Into Heat Exchanger (US Patent No. 11,549,434 B2). U.S. Patent and Trademark Office.

Publications

Nyame, S., Taylor, W. O., Spaulding, A., Denton, M., Yang, F., M. Koukoula, Cerrai, D., & Anagnostou, E. N. (in preparation). Spatial Prediction of Wildfire Ignitions in California Using Machine Learning Approaches.

Staid, A., Taylor, W.O., Peled, O., Vittal, E. (2026). An Approach for Justifying and Prioritizing Adaptation Investments for Climate Resilience. CIGRE Proceedings - Paris 2026.

Climate READi. (2026). Characterizing the Impacts of a Changing Climate on Tree-Related Outages and Utility Vegetation Management Effectiveness. EPRI. https://www.epri.com/research/products/000000003002035545.

Climate READi. (2026). Story Map: Climate-Resilient Planning in the U.S. Midwest. EPRI. https://www.epri.com/research/sectors/readi/research-results/3002034441.

Taylor, W.O., and McAuliffe, K. (2026). Opinion: CT needs a business model for more affordable and reliable utility service. Hartford Courant. https://www.courant.com/2026/01/15/opinion-ct-needs-a-business-model-for-more-affordable-and-reliable-utility-service/.

Acadia Center. (2026). Renewables Aren't Behind Energy Cost Increases. https://acadiacenter.wpenginepowered.com/wp-content/uploads/2026/01/AC_FactSheet_Renewables_R3.pdf.

Acadia Center (2026). Electricity Cost Drivers: Why Prices in the Northeast are Climbing. https://acadiacenter.wpenginepowered.com/wp-content/uploads/2026/01/AC_FactSheet_EnergyCostDrivers_R3.pdf.

Climate READi. (2025). Investing for Climate Resilience in the Power System: A Guide for Adaptation Prioritization and Decision Making v1.0. EPRI. https://www.epri.com/research/sectors/readi/research-results/3002031795.

Electric Power Research Institute (EPRI). (2024). Considering the equitable allocation of DER hosting capacity. EPRI. https://www.epri.com/research/products/000000003002029106.

Electric Power Research Institute (EPRI). (2024). Characterizing Resilience Metrics, Their Status, and Application to the Distribution System. EPRI. https://www.epri.com/research/products/000000003002030971.

Electric Power Research Institute (EPRI). (2024). Utility DER Integration Best Practices: Insights from EPRI's Industry Status Database. EPRI. https://www.epri.com/research/products/000000003002030456.

Electric Power Research Institute (EPRI). (2024). An Expanded Modular Template Framework for Valuing Resiliency: Incorporating the Resilience Value Extraction Tool and Community Resilience Considerations. EPRI. https://www.epri.com/research/products/000000003002030969.

Electric Power Research Institute (EPRI). (2024). Grid Services Provided by Distributed Energy Resources: Volume 1-Jurisdictional Scan and Analysis. EPRI. https://www.epri.com/research/products/000000003002031320.

Hughes, W., Nyame, S., Taylor, W. O., Spaulding, A., Hong, M., Luo, X., Maslenikov, S., Cerrai, D., Anagnostou, E., & Zhang, W. (2024). A Probabilistic Method for Integrating Physics-based and Data-driven Storm Outage Prediction Models for Power Systems. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 10(2), 04024021.

Nyame, S., Taylor, W. O., Hughes, W., Hong, M., Koukoula, M., Yang, F., ... & Cerrai, D. (2024). Transmission Failure Prediction Using AI and Structural Modeling Informed by Distribution Outages. IEEE Access.

Taylor, W. O., Nyame, S., Hughes, W., Koukoula , M., Yang F., Cerrai, D., & Anagnostou, E. N. (2023). Machine Learning Evaluation of Storm-Related Transmission Outage Factors and Risk. Sustainable Energy, Grids and Networks, 34, 101016.

Taylor, W. O., Cerrai, D., Wanik, D., Koukoula, M., & Anagnostou, E. N. (2023). Community power outage prediction modeling for the Eastern United States. Energy Reports, 10, 4148-4169.

Connecticut Public Utilities Regulatory Authority. Decision, Feb. 22, 2023, Docket No. 22-08-01, 2022 Clean and Renewable Energy Program Data and Report.

Connecticut Public Utilities Regulatory Authority. Decision, Feb. 8, 2023, Docket No. 22-08-02, Annual Residential Renewable Energy Solutions Program Review – Year 2.

Taylor, W. O., Watson, P. L., Cerrai, D., & Anagnostou, E. (2022). A statistical framework for evaluating the effectiveness of vegetation management in reducing power outages caused during storms in distribution networks. Sustainability, 14(2), 904. [awarded Editor's Choice]

Taylor, W. O., Watson, P. L., Cerrai, D., & Anagnostou, E. N. (2022). Dynamic modeling of the effects of vegetation management on weather-related power outages. Electric Power Systems Research, 207, 107840.

Connecticut Public Utilities Regulatory Authority. Decision, Dec. 21, 2022, Docket No. 22-08-05, Annual Energy Storage Solutions Program Review – Year 2.

Connecticut Public Utilities Regulatory Authority. Decision, Nov. 9, 2022, Docket No. 22-08-03, Annual Non-Residential Renewable Energy Solutions Program Review – Year 2.

Connecticut Public Utilities Regulatory Authority. Decision, Nov. 2, 2022, Docket No. 22-08-02, Annual Residential Renewable Energy Solutions Program Review – Year 2.

Connecticut Public Utilities Regulatory Authority. Decision Attachment 1, Feb. 23, 2022, Docket No. 17-12-03RE09, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Clean and Renewable Energy Resource Analysis and Program Reviews.

Taylor, W. O., Anagnostou, M. N., Cerrai, D., & Anagnostou, E. N. (2020). Machine learning methods to approximate rainfall and wind from acoustic underwater measurements (February 2020). IEEE Transactions on Geoscience and Remote Sensing, 59(4), 2810-2821.

Presentations & Proposals

W. O. Taylor. Grid Resilience Investment Prioritization. Panelist at 2024 Climate READi Annual Meeting.

W. O. Taylor. State Briefing: Connecticut. Panelist at RE+ Northeast 2023, 21-23 Feb.

W. O. Taylor, D. Cerrai, & E. N. Anagnostou. Community Outage Prediction Modeling Framework for Current and Future Climate Storm Events [SY31A-05]. Presenter at 2022 Fall Meeting, AGU, 12-16 Dec.

W. O. Taylor, D. Cerrai, M. Koukoula, F. Yang, G. Liang, & E. N. Anagnostou. A Success Story: Advancing Outage Prediction Modeling Capabilities for Decision Making [SY049-08]. Presenter at 2020 Fall Meeting, AGU, 14-16 Dec.

W. O. Taylor (FI), P. E. Kirstetter (co-I), E. N. Anagnostou (PI), February 2020 – FINESST – overall grade: Very Good/non-selection. Machine Learning-Based Satellite-Precipitation Model for Improving Estimation of Heavy Precipitation Events over Global Complex Terrain.