
Profile Energy quantitative analyst and clean technology professional unlocking the value of sustainability for everyone

Skills Energy Modeling · Trading · Project Finance · R · Python · SQL · Solidity · Git · VBA · JavaScript · Agile · **X**

Employment

Oct 2018 - Present: **Co-Founder of Emergi** *Carrboro, North Carolina*

Emergi is a non-profit cooperative impact investing platform. It currently provides 100% solar electricity at a fixed monthly rate to North Carolinians by managing users' monthly bill payments to source their energy from a local solar farm according to the Green-e clean energy standard. As a co-founder, I developed the business model, connected with local solar developers and users to bring the product to market, acquired 501c3 status, and managed billing and operations processes for our members.

Jan 2020 - May 2021: **Teaching Assistant at the University of North Carolina** *Chapel Hill, North Carolina*

I held office hours and facilitated assignments for courses related to energy and sustainability before and during COVID-19.

Apr 2014 - Oct 2018: **Quantitative Systems Developer at Emergi Solar** *Global*

Emergi Solar was an independent consultancy that provided solutions such as strategic advisory and data products to help early-stage cleantech ventures make better decisions. As the founder, I developed all business and intellectual property including algorithmic trading systems and an asset management software-as-a-service platform for blockchain-denominated assets. I partnered with local entrepreneurs to deliver projects such as creating a financial business model for off-grid solar deployment on-site in Rwanda and estimating the efficiency of rooftop solar installers in Oakland, CA using machine learning.

May 2014 - Apr 2016: **Portfolio Analyst at Sol Systems** *Washington, DC*

Aug 2013 - May 2014: **Trading Consultant at Sol Systems**

May 2013 - Aug 2013: **Trading Operations Intern at Sol Systems**

Sol Systems is a venture-backed solar development platform that has deployed over a billion dollars into solar projects in the U.S. As an early member of the team I helped with everything from filing paperwork and ordering lunches to closing project finance deals and researching new markets, working my way from an intern to become the senior-most member of the trading desk. As a consultant, I was responsible for creating the firm's trading models, forecasting market fundamentals, and calculating the portfolio's risk position. As an analyst I sourced and managed trades that netted millions in revenue, supporting company growth from 15 to 60 full-time employees and a round of strategic equity investment from a Fortune 500 utility.

Apr 2011 - Dec 2011: **Sustainability Reporting Intern at UNC Energy Services** *Chapel Hill, North Carolina*

UNC Energy Services operates and maintains campus utilities including a combined heat & power (CHP) plant and distribution systems. As an intern, I cataloged green campus projects and assembled the campus's comprehensive sustainability report.

Education

Aug 2019 - May 2021: **Master of Science at the University of North Carolina** *Chapel Hill, North Carolina*

Study net energy equity with the Sustainable and Resilient Energy Group in the Environment, Energy, and Ecology Program. Conduct a thesis assessing the prevalence of energy poverty in the United States by at the census tract scale using census data.

Jun 2010 - May 2014: **Bachelor of Science at the University of North Carolina** *Chapel Hill, North Carolina*

Majors in Environmental Science (Energy & Sustainability) and Economics; minors in Mathematics and Entrepreneurship.

Jun 2012 - Dec 2012: **Research at Joint Graduate School of Energy & Environment** *Bangkok, Thailand*

Took graduate environmental economics courses and published a life cycle assessment of an island hybrid microgrid.

Jun 2010: **Research at Cambridge University Department of Land Economy** *Cambridge, England*

Conducted a survey of local businesses' willingness to pay for climate change mitigation and presented results to stakeholders.

Extracurriculars

Dec 2020 - Present **Member of Orange County Commission for the Environment** *Carrboro, North Carolina*

Appointed adviser to the Orange County Board of County Commissioners on matters relating to the environment and climate.

May 2020- May 2021: **Director of Sustainability and Transportation** *UNC Graduate and Professional Student Government*

Coordinated graduate student transportation and directed sustainable investment of student fees during COVID-19.

Aug 2010 - May 2014: **Member of Renewable Energy Special Projects Committee (RESPEC)** *Chapel Hill, North Carolina*

Helped manage a \$250k/year grant pipeline and permanently renew the committee's funding through a local ballot initiative.

Jul 2019: **Holder of Series 65 (Uniform Investment Adviser Law Exam)** *Financial Industry Regulatory Authority (FINRA)*

Jan 2019: **Recipient of Smart Contract Development Certificate** *ConsenSys Academy*

Sep 2015 - Dec 2015: **Fellow of Clean Energy Leadership Institute** *Washington, DC*

CELI is a highly selective fellowship training program and professional network that provides a fundamental overview of key market and policy principles and clean-energy specific leadership development training taught by top clean energy experts.