

YINGFEI JIANG

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EDUCATION

Master of Environmental Science and Management (6/20)

Bren School of Environmental Science & Management – University of California, Santa Barbara

Specialization: Energy and Climate, Economics and Politics of the Environment

Master of Science, Materials Science and Engineering (6/18)

School of Engineering and Applied Science – University of Pennsylvania, Philadelphia

Highlighted Coursework: Energy Storage and Technology, Energy Systems and Policy, Polymer and Biomaterials, Atomic Modeling in Materials Science, Semiconductor Science

Bachelor of Science, Physics (5/16)

School of Physics, School of Literature – Nankai University, Tianjin, China

Specialization: Physics for Materials

Bachelor of Arts, Chinese Language and Literature (2nd Major) (5/16)

School of Literature – Nankai University, Tianjin, China

Specialization: Contemporary Chinese Literature

WORK EXPERIENCES

LCA Engineer (11/21 – 06/23)

Bolt Threads, Emeryville, CA

- Established the initial environmental sustainability program for a bio-tech start-up company, including carbon management, product Life Cycle Assessment (LCA), impact reduction (with a focus on carbon and water consumption) strategy development
- Led carbon management program including analyzing, communicating, and disclosing corporate carbon footprint (scope 1, 2 and 3)
- Led renewable energy procurement program for the company's North American and Dutch operations
- Developed iterations of LCA models for innovative bio-tech products with applications including textile material, cosmetic ingredient, etc.
- Led internal impact reduction efforts through collaboration with research, process development, engineering, product development, and quality teams
- Led supply chain impact reduction efforts through collaboration with major suppliers
- Led sustainability certification program including carbon offset, vegan certificate, chemical management certificate, etc.
- Collaborated with marketing and sales teams on effective impact communication with media and clients
- Coordinated relationship with external sustainability partners including industry groups, NGOs
- Hosted educational sustainability workshops for employees

Environmental Analyst (12/20 – 11/21)

VitalMetrics Group, Santa Barbara, CA

- Performed LCA in the context of wide-ranging projects and performing detailed calculations to find material flows, greenhouse gas (GHG) emissions, ecological footprints, and other environmental, economic, and social metrics

- Analyzed the feasibility and decarbonization potential of state-of-art and emerging technologies in various industries for sustainable supply chain management
- Developed a GHG abatement model based on an existing Economic Input-Output Life Cycle Assessment (EIO-LCA) model, which would provide scientific estimates on how supply technology intervention would affect the company's Scope 3 carbon footprint; the model would help the client understand the carbon hotspots in the supply chain, and develop a science-based supply chain decarbonization strategy
- Performed Carbon Accounting for various organizations (scope 1, 2 and 3)
- Improved environmental database management, including data collection, database maintenance, and environmental data modeling
- As a team member, reviewed and published a review article on LCA for plastics through National Institute of Standards and Technology (NIST)

Research Assistant (2/19 – 11/21)

University of California, Santa Barbara, Santa Barbara, CA

- Initiative to distribute high efficiency cookstoves to underprivileged communities in Rwanda and analyze their environmental and health benefits, with 100+ stoves distributed to the communities
- Employed LCA to analyze the environmental impacts for common cooking methods used in Rwanda
- Presented in Africa's Readiness for Climate Change (ARCC) Forum hosted by University of California, Los Angeles in April, 2021
- Collaborated with Santa Barbara-based NGO World Dance for Humanity (WD4H) to establish a donation channel for continuous cookstove supply
- Established the data collection and management system for the project

Data Manager (1/19 – 5/20)

University of California, Santa Barbara; Apeel Sciences, Santa Barbara, CA

- Group project on analyzing the environmental impacts of sourcing agricultural wastes and by-products as production feedstocks for a novel bio-based chemical production, with Apeel Sciences as client
- Employed LCA to evaluate the environmental impacts of sourcing various feedstock options
- Developed an easy-to-implement method to determine the environmental impacts of sourcing wastes/by-products – the economic allocation method and the substitution method
- Discussed the relationship between the substitution method and the system expansion method in LCA modeling

SKILLS

- **Programming Languages:** R, Python
- **Econometrics:** Linear and Logistic Regression, Matching Method, Propensity Score Method, Instrumental Variable Method, Fixed Effects and Difference-in-Difference Methods
- **Other Statistical Analysis:** Time Series and Geographic Analyses, Principal Component Analysis, Text Mining and Analysis, Clustering
- **Data Visualization:** Tableau, ggplot Package (R)
- **Industrial Ecology Methods:** Life Cycle Assessment (process-based and EEIO), Carbon Accounting (Carbon Footprinting), Material Flow Analysis, Techno-Economic Analysis
- **Software:** SimaPro, MS office package
- **Language:** English (proficient), Mandarin Chinese (native speaker)