

# YINGFEI JIANG

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## EDUCATION

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**Master of Environmental Science and Management** (June 2020)

**Bren School of Environmental Science & Management – University of California, Santa Barbara (UCSB)**

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

Highlighted Coursework: Econometrics, Cost Benefit Analysis, Natural Resources Management, Climate Change Impact and Adaptation, Environmental Modeling, Economics of Environment Management

**Master of Science, Materials Science and Engineering** (June 2018)

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

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

**Bachelor of Science, Physics; Bachelor of Arts, Chinese Language and Literature** (May 2016)

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

Specialization: Physics for Materials

Award/Honors: Gongneng Scholarship

Thesis/Research: Preparation and characterization of MoS<sub>2</sub> thin film (~20 nm)

Leadership/Involvement: Center for Student Service and Interests Director, Nankai University Admission Committee

## RESEARCH EXPERIENCES

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**Adopt a Cookstove – Initiative on Improving Cooking Conditions in Rwanda** (2/19 - ongoing)

**University of California, Santa Barbara, Santa Barbara, CA**

- NGO initiative to distribute high efficiency cookstoves to underprivileged communities in Rwanda and analyze their environmental benefits
- Employed life cycle assessment (LCA) to analyze the environmental impacts for common types of cookstoves used in the developing world (three stone wood stove, charcoal stove, wood-pellet gasifier stove)
- Analyzed the depletion pattern of Rwandan forestry resources due to local cooking fuel consumption
- Calculated potential carbon offsets of advanced cookstove projects in Rwanda in an LCA perspective and evaluated the accuracy and credibility of existing calculation methodologies used by the voluntary carbon offset market

**Waste Watcher – Analyzing the Environmental Impacts of Sourcing Agricultural Wastes and By-products as Production Feedstocks** (1/19 – 5/20)

**University of California, Santa Barbara, Santa Barbara, CA**

- Group project with Apeel Sciences; served as data manager
- Employed different LCA methods (economic allocation and substitution) to evaluate the environmental impacts of sourcing various agricultural wastes and by-product as feedstock
- Proposed an improved method to evaluate the environmental impacts of sourcing wastes and by-product

**Atomic Model Lab (9/17-12/17)**

**University of Pennsylvania**, Philadelphia, PA

- Class project for atomic modelling in material science
- Employed the molecular statics method, the molecular dynamics method and the Monte Carlo method to construct atomic models of Argon crystal
- Constructed the models with Fortran 90

**Stanford Environmental & Water Studies Summer Program (6/17-8/17)**

**Stanford University**, Stanford, CA

- Intensive summer program with graduate level courses focusing on generating environmental solutions
- Courses including Water Resource Management, Behavior Change (Psychology for Public Communication), and Smart Cities
- Researched on the water resource management in Bolivia

**Material Preparation and Characterization Lab (6/14-9/14)**

**Ningbo Institute of Material Technology & Engineering, China Academy of Science (CAS)**, Ningbo, China

- Summer internship program; worked as research assistant
- Employed Thin Film Deposition Magnetron Sputtering Systems to prepare magnetic thin films
- Prepared Neodymium-Iron-Boron and Samarium-Cobalt target material; dealt with cracking issue

**Engineering Physics Lab (8/13-5/14)**

**Nankai University**, Tianjin, China

- Employed atomic layer graphene as a saturable absorber for ultrafast pulsed lasers
- Prepared and cleaned the graphene flake; transferred the sample to the laser diode in extremely clean environment (Class 1000 or IOS 6 equivalent)
- Managed to acquire pulse signal as expected; proposed to transfer the flake in cleaner environment (Class 100 or less) to fully achieve the desired laser pulse

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**ADDITIONAL EXPERIENCES**

**Poetry Studies on *A Tour to Fuchun Mountain with Gongwang Huang* by Yongming Zhai (1/16-4/16)**

**Nankai University**, Tianjin, China

- Dissertation project led to the attainment of the bachelor's degree in Chinese Language and Literature
- Addressed Chinese traditional imagist poetry and female subjectivity

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**SKILLS**

- **Programming Languages:** R, Python, Java, Fortran 90, MATLAB, C++
- **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, Test Mining and Analysis, Clustering
- **Environmental Metrics:** Life Cycle Assessment, Carbon Accounting