Xuecong (Evan) Pu

Address: Hangzhou 310058, P.R. China | E-mail: evan_pu@zju.edu.cn | Tel: +86 (571) 18888925517

EDUCATION

Master of Agricultural Sciences, Zhejiang University   **Zhejiang, China**

Agricultural Engineering and Information Technology, Graduate GPA: 3.91/4.0   *Sept.2021 - Jun.2024 (exp.)*

Minor: *Global Engagement Program (GEP), School of International Studies*

Illinois International Programs, UIUC   **Urbana-Champion, USA**

School of Earth, Society and Environment Summer Program   *Jul.2019 - Aug.2019*

Focus: *Atmospheric Sciences*

Bachelor of Agricultural Sciences, Zhejiang University   **Zhejiang, China**

Agricultural Resources and Environment, Undergraduate GPA: 3.62/4.0   *Sept.2017 - Jun.2021*

Major Coursework: *Geographic Information System (GIS), Remote Sensing Image Processing, Resource Science, Agro-Informatics, Development of Environment & Resources System, Environmental Microbiology, Soil Biology & Biochemistry, Organic Chem, Calculus, Fundamentals of Economics, Management of International Development*

RESEARCH INTERESTS

Remote Sensing; Land-use/Land-cover Change; Carbon Cycle Science; Deep Learning; Geographic Information System

PUBLICATIONS

Published:

1. Liu, Y., **Pu, X.**, & Shen, Z. (2023). Crop Type Mapping Based on Polarization Information of Time Series Sentinel-1 Images Using Patch-Based Neural Network. Remote Sensing, 15(13), 3384.

In Review:

1. Chen, C., Shen, Z., Fang, L., Lin, J., Li, S., **Pu, X**., & K. Wang. (2023). A Hybrid Landslide Susceptibility Framework Modeling Actual Landslide Probability. Catena.

RESEARCH EXPERIENCE/PROJECT-BASED LEARNING

Crop Type Mapping from Sentinel-1 Time Series Using Deep Learning Networks   **Zhejiang, China**

Individual Research Project [Advisor: Prof. Zhangquan Shen, Zhejiang University]   *Oct.2022 - present*

- Middle-scale crop type mapping of Wharton County in Texas, USA via up-to-date deep learning models including Transformer, BiLSTM, 2D & 3D CNN, with Random Forest as the baseline model. All the models harness the spatiotemporal features of Sentinel-1 time series imagery (**manuscript in preparation**)

Landslide Susceptibility Prediction Enhancement Leveraging Machine Learning Models   **Zhejiang, China**

Collaborative Research Project [Advisor: Prof. Ke Wang, Zhejiang University]   *Oct.2022 - Oct.2023*

- This research developed a heterogeneous ensemble learning (HEL) approach, SL-AUC, which consistently outperformed other models in landslide susceptibility mapping, yielding up to 9.58% increase in AUC and 6.13% increase in AUPRC, demonstrating its effectiveness and resistance to data imbalance (**paper under review**)

Mining & Analysis of Characteristic Data for Typical Contaminated Sites with Geovisualization   **Zhejiang, China**

Student Research Training Program [Advisor: Prof. Zhou Shi, Zhejiang University]   *May.2019 - Apr.2020*

- Mined characteristic data of polluted sites in the Yangtze River Delta Region of China utilizing Python's urllib2 and BeautifulSoup libraries for web data scraping
- Created training and validation sets for contaminated areas for Random Forest analysis

School of Earth, Society and Environment Summer Program   **Urbana-Champaign, USA**

Team Project [Advisor: Dr. Brian Jewett, University of Illinois at Urbana-Champion]   *Jul.2019 - Aug.2019*

- Employed GIS toolkits for meteorological analysis and early warning. Used Python libs including GeoPandas

PROFESSIONAL EXPERIENCE

Environmental Defense Fund | Fellowship   **Beijing, China**

Climate Corps China Fellow   *Jun.2023 - present*

Walmart (China) Investment Co., Ltd. | Corporate Affairs Dept. | Sustainable Development Team   **Beijing, China**

Summer Intern [Advisor: Ms. Wenjuan Abigail Bi, Senior Director]   *Jun.2023 - Sept.2023*

- Conducted a feasibility study on converting food waste into animal feed in the Chinese market
- Estimated that repurposing Walmart's food waste could potentially reduce Scope 3 CO_2 Emissions by 767.6MT

United Nations Institute for Training and Research | Division for Multilateral Diplomacy   **Online/Geneva, Switzerland**

United Nations Immersion Program Trainee [Advisor: Mr. Julian Caletti]   *Feb.2022 - Feb.2022*

- Acquired knowledge and skills in English speech and writing, leadership, and the United Nations System

FELLOWSHIPS, AWARDS & HONORS

Environmental Defense Fund (EDF) Climate Corps Innovation Award   2023

First Prize in the Contest of Dam Safety Science Popularization for Belt and Road Initiative (LMC) Countries   2023

Best Delegate in Youth Summit for Model Global Environmental Negotiation (WWF China)   2022

Zhejiang University Wang Renchao First-class Scholarship (Top 5%)   2022

Zhejiang University Graduate of Merit/Triple A Graduate (Top 10%)   2022

EXTRACURRICULAR ACTIVITIES

- Served as a Teaching Assistant in 2022 Zhejiang University SDG Global Summer School, Carbon Neutrality Module
- Led as a Volunteer Coordinator for the 5th China College Students' Innovation and Entrepreneurship Competition
- Engaged in the 2023 GAUC Climate x Leadership Program, promoting awareness on climate change and health

SKILLSETS & INTERESTS

Language: Mandarin Chinese (*native*); English (*proficient, IELTS Overall Band Score: 8.0*); French (*elementary*)

Geospatial & Programming Skills: ArcGIS (Desktop & Pro), QGIS, SNAP, Google Earth Engine, Python, C/C++, Java

Deep Learning Frameworks: CNN, RNN, LSTM, Transformer and their variants (developed on PyTorch)

MS Office: proficiency in PowerPoint, Word, Excel, Visio, Outlook

Interests: guitar, traveling and cross-cultural communication