

Edward Xu

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EDUCATION

University of Massachusetts Amherst

Sep. 2020 – May 2024

Amherst, MA

- B.S. Environmental Science
- Geographic Information Science and Technology Certificate
- Commonwealth Honors College with Great Distinction | **GPA 3.61/4.0**

Relevant Courses: Python for ArcGIS, Spatial Databases and Data Interoperability, Analysis of Environmental Data, Applications in UAS, Inorganic Contaminants, Remote Sensing, and Image Interpretation

RESEARCH AND UNIVERSITY EXPERIENCE

Department of Resource Economics

Sep. 2023 – May 2024

Honors Thesis

Amherst, MA

- Modeled and mapped levelized cost of offshore wind turbines at over 900,000 points within EEZ.
- Analyzed impact of six geographic variables on productivity, cost, and impact of offshore turbines.
- Processed geospatial data in ArcGIS Pro and Jupyter Notebooks using Python's Math and GeoPandas.
- Presented results at the Massachusetts Undergraduate Research Conference.

Department of Earth, Geographic, and Climate Sciences

Sep. 2023 – Dec. 2023

Teaching Assistant

Amherst, MA

- Supervised weekly three hour, 50-student lab, answering lab questions, and guiding final projects.
- Instructed on topics including map creation, vector and raster data, geoprocessing, classification, and joins.
- Reviewed and recreated each lab weekly to maintain working knowledge of student instruction.
- Delivered one-on-one mentoring during four hours of weekly office hours outside of structured class time.

School for Field Studies

Sep. 2022 – Dec. 2022

Student Researcher

Queensland, Australia

- Conducted research on species diversity and carbon storage potential of regenerative agroforestry.
- Utilized handheld GPS to map, measure, and document 9,000+ individuals in field research settings.
- Established partnerships with local farmers to secure usage permission and develop program links.
- Conducted statistical analyses in RStudio using ANOVA and Mann-Whitney tests.

WORK EXPERIENCE

Hyannis Yacht Club

Jan. 2023 – Present

Server

Hyannis, MA

- Managed up to 30 guests simultaneously, maintaining attentive and empathetic service for each guest.
- Anticipated customer needs by proactively asking relevant questions about order details.
- Maintained attention to fine details and ensured accuracy and timeliness of customer orders.

Durfee Conservatory

Jan. 2022 – May 2022

Greenhouse Assistant

Amherst, MA

- Maintained 4,000+ sq ft greenhouse through systematic watering, pruning, cleaning, and feeding.
- Cared for a diverse collection of 1,300+ plant species, including rare tropical and desert specimens.
- Enhanced Conservatory displays through plant curation and aesthetic arrangement.

SKILLS

- **Data Processing and Programming** – PostgreSQL, Python, Jupyter Notebooks, RStudio, FME, HTML
- **Geospatial Analysis and Cartography** – ArcGIS Pro, ArcGIS Online, QGIS, PostGIS
- **Imagery and Raster Analysis** – Image Classification, DEM Creation and Analysis, Change Detection, ENVI
- **Research** – Literature Review, Research and Survey Design, Field Sampling, Quantitative Analysis
- **Communication** – Research Presentations, Technical Reports, Collaboration