Edward Xu

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EDUCATION

University of Massachusetts Amherst   *Sep. 2020 – May 2024*
- B.S. Environmental Science   Amherst, MA
- 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 ArcPy & 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 50-student lab, answering questions, and guiding students on final projects.
- Instructed on topics including map creation, vector and raster data, geoprocessing, classification, and joins.
- Reviewed and recreated each lab weekly to maintain precise knowledge and 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*
Research Assistant   Queensland, Australia
- Conducted research on species diversity and carbon storage potential in regenerative agroforestry.
- Utilized GPS technology to map, measure, and document 9,000+ individuals in field research settings.
- Conducted sophisticated statistical analyses including ANOVA and Mann-Whitney tests using RStudio.
- Established partnerships with local farmers to secure land agreements and develop community programs.

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
- **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