

# Edward Xu

Barnstable, MA | edxu@edxu.co | 312-385-9385 | edxu.co

## 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

## EXPERIENCE

### Department of Resource Economics – UMass Amherst

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 – UMass Amherst

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.

### 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.
- Led shadow shifts to train new servers, providing real-time feedback on service standards and menu.

### 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.

### 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.
- Monitored environmental controls including temperature, humidity and ventilation.
- 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