

Alexandra Chua

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Education

Wellesley College

Graduated: May 2024

Bachelor of Arts (BA)— Major: Biological Sciences, Major: Environmental Studies

Relevant Coursework

- Ecology with Laboratory, Ecosystem Ecology with Laboratory, Seminar: Biology of Social Insects, Cell Biology with Laboratory, Microbiology with Laboratory, Oceanography, Environmental, Health, and Sustainability Sciences with Laboratory, Seminar: Climate Change & Marine Eco,
- Environment and Society: Addressing Climate Change, Social Causes and Consequences of Environmental Problems, Environmental Decision-making

Field Experience

East Foundation | Dr. Abraham Woodard

Sep 2024 - Current

Quail Research Technician

- Assisted in researching and monitoring Northern Bobwhite quail populations in southern Texas through call surveys, baited trapping, banding, collaring, releasing, and VHF radio telemetry. Conducted helicopter surveys of quail coveys.
- Conducted white-tailed deer capture research including tagging, biological data collection, release, and blood analysis. Assisted in endangered ocelot research through live trap preparation.
- Performed vegetation surveys using quadrats, plant identification, and sampling.
- Collected and organized field data using standardized protocols, including GPS mapping and data entry. Operated and maintained field equipment.
- Collaborated with wildlife biologists to analyze data and support management recommendations for quail conservation. Assisted in educational outreach and community engagement activities related to quail ecology and habitat restoration.

Research Experience

MIT Climate & Sustainability Consortium | Dr. Akachukwu Obi & Dr. Elizabeth Moore

Mar 2024 - Sep 2024

Student Researcher, Post-Baccalaureate Research Assistant

- Researched the logistics of Carbon Capture and Storage (CCS) in the global industry, analyzing the sources and impact of funding, partnerships, and technology in CCS deployment.
- Categorized and compared various CCS deployment initiatives, with an emphasis on identifying the most impactful logistical factors and how they may enable the success of global initiatives.
- Performed spatial-economic analysis in order to optimize CCS hub and pipeline formation. Presented findings to faculty and the MIT Climate & Sustainability Consortium (MCSC).

Dr. Cesar Terror Lab | Civil and Environmental Engineering Department, MIT

May 2024 - Sep 2024

Post-Baccalaureate Research Assistant

- Reviewed academic literature to determine the effect of land use change on terrestrial mammal and bird biodiversity. Compiled and analyzed large, primary biodiversity monitoring datasets to evaluate target species abundance, occurrence, and presence-absence data.

MIT Climate & Sustainability Consortium | Dr. Evan Coleman

Jun 2023 - Aug 2023

Student Researcher

- Conducted a research project on the influences of various elements in soil. Created Mulder's charts and systems dynamics diagrams to understand complex soil elemental relationships.
- Engaged in an extensive literature review to formulate a comprehensive analysis of soil relationships based on existing data. Coded hypergraphs to demonstrate quantitative relationships between soil elements and minerals in a presentation to the MCSC community.

Work Experience

Environmental Health and Safety Office | Wellesley College

Nov 2021 - May 2024

Environmental Health and Safety Assistant

- Conducted inventory and inspection of First-Aid kits, chemicals, and eyewashes in Chemistry Laboratories, Biology Laboratories, Art Department, EHS facilities to ensure adherence to safety protocols across campus.
- Demonstrated strong interpersonal skills while communicating project goals and progress to EHS faculty and informing the campus community about health and safety concerns.

Related Skills

Field Skills: Field data collection of flora and fauna, Soil coring, Water sampling, Climatic data collection, Animal trapping/handling/release, Operating 4WD Vehicles, VHF Radio Telemetry, Bird banding & aging

Software: MS Office, Google Workspace, RStudio, ImageJ, ArcGIS, InVEST, iNaturalist, Avenza Maps