JESSICA YAN

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EDUCATION

Bachelor of Arts in Computer Science, Princeton University — Expected 2026
High School Diploma, Mississippi School for Math and Science — 2020 - 2022
Relevant Coursework: Algorithms and Data Structures
Relevant Skills: (Proficient): Java (Familiar): Python, Git, HTML, CSS, R
Languages: Chinese (Fluent)
Awards: Regeneron STS Top 200 Scholar; ISEF Finalist; US Stockholm Junior Water Prize Runner-up

WORK EXPERIENCE

Data Analysis Intern — June 2023 - Aug 2023
National Marine Sanctuary Foundation — *Remote*

- Nonprofit organization dedicated to protecting national marine sanctuaries through conserving species and restoring marine ecosystems
- Coded with Excel VBA to automate data processing of participants' understanding of coral conservation course knowledge, reducing impact metric output time by over 90%
- Cleaned/analyzed underwater marine debris removal data, and used data visualization to produce impact reports and visual infographics to share across the Foundation's media platforms with over 100k followings

Data Collection Intern — Sept 2022 - Dec 2022
Center for Rural Enterprise and Environmental Justice (CREEJ) — *Remote*

- Organization seeking to eliminate the inequalities in water infrastructures across marginalized communities and increase access to clean water and sanitation.
- Reached out to the Mississippi Department of Health and gathered progress reports and data regarding on-site septic systems across all 82 counties in Mississippi.
- Compiled data and developed a state-wide sanitation database on wastewater infrastructures.

PROJECTS/RESEARCH

Magnetite/Graphene Nanocomposites for Heavy Metal Adsorption.
Created nanocomposites from iron nitrate and wood waste through heat processes and improved heavy metal adsorption rate from polluted water by 7x compared to biochar.

Reinforced Lignin Foams with Higher Adsorption Capability (Continuation Research).
Improved lignin foams' mechanical strength by 12x to withstand large pressure and effectiveness by over 10% in removing heavy metals and oils from contaminated water.

Lignin Foam: A Sustainable Biosorbent for Removing Heavy Metals and Spilled Oil from Water.
Developed porous lignin foams from wood waste through a simple baking process that improved adsorption capabilities to metals and oil in water compared to activated carbon.

EXTRA-CURRICULAR ACTIVITIES

Hack4Impact — Oct 2022 - Present

- Working on the developer side of the team to build software tools and assist in nonprofits' missions
- Reached out to nonprofit organizations across New Jersey and secured project partnerships with NJ Tree Foundation and African Library Project as an outreach liaison

IgniteSTEM — July 2022 - Present

- Developing project-based learning resources to assist teachers in revolutionizing education in the classroom
- Host bi-annual education conferences for teachers to participate in workshops to gain inspiration on improving how STEM education is taught to students