

Bob Deng

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EDUCATION

University of Georgia, Honors Program, Athens, GA

Expected Graduation: May 2024

Bachelor of Science in Environmental Engineering

GPA: 3.84/4.0

Relevant Coursework: Calculus, Physics, Chemistry, AutoCAD, MATLAB, Statics (Honors), Undergraduate Research, Intro to Environmental Engineering and Sustainability, Fluid Mechanics, Urban Systems (Honors), Energy Analysis

Honors: Classic City Scholar, CURO Research Award (F21, S23), Presidential Scholar (F20, S21), Dean's List (F21, S22, F22), Honors Program (Top 5% of Class), Tau Beta Pi

PROFESSIONAL EXPERIENCE

Undergraduate Research Assistant

September 2022–Present

Institute for Resilient Infrastructure Systems, Athens, GA

- Design and model 2D maps of Tybee Island and its stormwater infrastructure to simulate compound flooding along its Southeastern “Flood Bowl” to guide 3,000+ residents in developing more resilient infrastructure.
- Research and propose green infrastructure systems on ArcMap that will combat compound flooding and future sea level rise, while also providing habitats for native wildlife and beautifying the environment.
- Collaborate with a GIS professional to refine the current model’s mapping of nodes and links in ICPR4.

Tutor, Bright Start Group International, Kingston, Jamaica

June 2022–Present

- Conduct weekly online tutoring sessions to teach SAT Math and advanced calculus to high school students.
- Produce an average SAT Math score increase of 250 points within one month of tutoring.
- Customize detailed class plans to meet realistic and achievable goals for the improvement of every student.
- Produce monthly tutor reports to inform parents/ guardians of their student’s progress in the class.

Volunteer Research Assistant, Jambeck Research Group, Athens, GA

March 2022

- Conducted 60+ 100 square-meter transects in a week, logging hundreds of plastic litter items by the Ohio River Basin using the Marine Debris Tracker App, generating data from the most litter-dense county in the US so far.
- Characterized all litter collected by type and manufacturer, generating frequency graphs of item type and count, showing plastic pollutants of highest concern to guide policy recommendations.
- Captured hundreds of photos illustrating the variety and extent of plastic litter in a database to be used by Stark County schools to engage students to explore and be curious in their communities, as well as for social media.

Undergraduate Research Assistant, Riverbend Research Lab South, Athens, GA

July 2021–May 2022

- Cut, measured and stored up to 20 nonwoven electret samples from various sources daily to test parameters regarding filtration efficiency, surface charge measurement and charge retention.
- Conducted acoustic measurements of 13 unique samples of 3D printed nonwoven sheets at 7 different frequencies with a proprietary impedance tube, compiling the data from QuickDAQ to determine transmission loss values.
- Generated multiple graphs and tables from all experiments for data visualization, portraying results accurately in a digestible manner, with captions and notes explaining gaps/ new discoveries in the data for further study.
- Performed literature reviews of 2+ full-length research articles weekly, producing a database of corona charging variables and outcomes to be implemented in the new corona charging machine at the Riverbend Research Lab.
- Presented the research findings at the 2022 CURO Symposium to 400+ guests from industry to academia.

CAMPUS & COMMUNITY INVOLVEMENT

Member, Equity Engineers Council, Athens, GA

November 2022–Present

- Work with fellow council members on short and long-term initiatives to improve minority student life and foster success and community building.
- Advocate for DACA and international students by publishing answers to questions regarding work authorization.
- Attend biweekly team meetings, report project progress through Slack channels, and develop leadership skills in diversity and team communication through workshops and presentations from experts.

SKILLS AND INTERESTS

Spanish (Intermediate Proficiency), Mandarin (Intermediate Proficiency), Jamaican Creole (Advanced Proficiency), MATLAB, AutoCAD, Rock Climbing, Diversity, Equity and Inclusion, Cultural Exchange, Design and Entrepreneurship