

Aidan Banerjee

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Professional Summary

Full-stack app developer and machine learning engineer specialized in environmental and energy solutions. Built data-driven applications for wind energy optimization, environmental monitoring, and sustainable infrastructure across 4+ years. Combines technical expertise with environmental policy research to create scalable clean technology solutions.

Education

Tufts University, School of Engineering: (*Magna cum laude*; GPA: 3.67/4.0) (Expected May 20, 2025)

Bachelor of Science in **Computer Science** | Minors in **Environmental Science and Policy & Mathematics**

Technology Experience

Programming & Applications: Python, C/C++, Java, JavaScript, Typescript, React, SQL, Next.js, HTML/CSS

Data Science: PyTorch, Jupyter Notebook, Machine Learning, Scikit-Learn, Signal Processing, Pandas, Numpy

Cloud Platforms & DevOps: AWS, MongoDB, Appian, Prisma, Git, Agile

Work Experience

Environment America - Summer Associate 7/15/2024 - 8/22/2024

- Researched policy, built GIS models, and developed websites for the Environment America's national clean water chapter, focusing on campaigns to reduce lead in school drinking water and monitor toxic algae in waterways.

The Data Intensive Studies Center - Research Internship in Offshore Wind 1/17/2024 - 6/5/2024

- Conducted research in structural dynamics, signal processing, and physics-informed machine learning models.
- Analyzed the structural health of offshore wind turbines while contributing to policy through agent-based modeling.

Tufts Computer Science - Teaching Assistant 9/14/2022 - 12/21/2024

- Work office hours shifts 3-4 times per week teaching C++, grade homework submissions and assist lab recitations.

Powerley Energy - Hardware/Software Internship 6/5/2023 - 8/16/2023

- Integrated firmware controls in C/C++ with cloud services for Powerley's outage detection systems
- Developed AWS Lambda Functions for collecting and tracking energy meter data.

Appian Corporation - Marketing Internship 6/13/2022 - 8/12/2022

- Designed web projects and tested features on the CX team using Appian Community Edition (ACE).
- Built an interactive job board for Appian's low code for all (#lc4a) initiative.

Congressman Jamie Raskin, DC Office - Summer Staff Internship 8/1/2020 - 8/30/2020

- Worked as a staff intern for Congressman Jamie Raskin before the 2020 presidential election, answering constituent calls to assist veterans and on mail-in voting procedures.

Project Experience

Green Roots - Environmental Justice Application 5/6/2024 - Current

- Overseeing the creation of a grassroots advocacy application that empowers local communities to engage in discussions, advocate for policy change, and address pressing environmental justice issues.
- Collaborating with a team of four developers to create a full-stack mobile application using React Native.

MyRWA UFP Dashboard - Data Analytics Project 9/6/2024 - Current

- Building a comprehensive data pipeline to process and visualize ultra-fine particle (UFP) pollution data (20+ GB) from sensors for the Mystic River Watershed Association, to support public health awareness in EJ communities.

Machine Learning Classifier - Limited Labeled Data Project 9/14/2022 - Current

- Designing and implementing a recyclable waste management system using transfer learning and SimCLR models, currently achieving ~80% accuracy on test datasets with limited labeled data, creating scalable waste sorting solutions.

Tufts Rock Climbing Team - Executive member and Team Captain 9/4/2016 - Current

- Serving as Captain of the Tufts Climbing Team, managing all team operations and events for 150+ members.