

Bidipta Roy

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EDUCATION

Boston University

B.S. in Computer Science, Minor in Entrepreneurship

- o **Related Coursework:** Data Structures & Algorithms, Databases, Computer Systems & Programming, Combinatorics, Object-Oriented Programming, Web Development

Boston, Massachusetts

Expected Graduation, May 2027

EXPERIENCE

Long Island Swim School

Swim Instructor

- Taught group lessons focusing on stroke fundamentals, technique improvement, and water safety for ages 4–12 using personalized training plans; taught 100+ students

Garden City, New York

Sep 2021 – Aug 2023

SWIMTastic Swim School

Swim Coach

- Coached youth and adult swimmers in 1:1 and small groups, creating individualized plans to improve stroke efficiency; managed roster of students flowing throughout the week for all instructors

Hempstead, New York

May 2025 – Present

PROJECTS

EcoRoute

2nd Place, BU Civics Hackathon, 1st in Environmental Hack

- Leveraged sensor data from 84 trash bins to help BU's Team Sustainability non-profit to map and visualize trash/recycle Big Belly Bins across BU's campus
- Developed and deployed a dynamic dashboard with a hotspot algorithm to identify overflowing bins, optimize collection times, and improve bin placement based on foot traffic, with NextAuth.js handling secure authentication for BU Sustainability team members.
- Cleaned and processed raw CSV data from City of Boston's open data portal and BU's Big Belly Bin sensor network into a SQLite database to be used later in the web app
- Organized and led a team of five, delegating dashboard development to two software engineers, and data pipeline work to three data scientists, coordinating handoffs between teams to deliver a functional product on deadline.

Boston, Massachusetts

Feb 2026

NoGI BJJ Trainer

Personal Project

- Built a full-stack web application with 19+ Jiu Jitsu technique modules across 6 categories, implementing RESTful API endpoints, and real-time quiz polling with live vote aggregation
- Integrated MongoDB cloud database to store profile info and comments, and secure API routes, deploying frontend on Vercel with CI/CD pipeline and backend on Node.js server
- Designed responsive UI with Tailwind and React Hooks, implementing CRUD operations for comment system and session storage

Boston, Massachusetts

Nov 202

ACTIVITIES AND LEADERSHIP

Hack4Impact

Member and Collaborator, Incoming SWE in Fall

- Collaborate on group web projects using JS, HTML/CSS, React. Will be returning as non-profit software engineer in Fall 2026

Boston, Massachusetts

Sep 2025 – Present

Brazilian Jiu Jitsu Club

Secretary

- Manager to oversee club operations, and assist in planning of events and training sessions, created learning dashboard

Boston, Massachusetts

Sep 2024 – Present

SKILLS

Programming: Java, Python, JavaScript, HTML/CSS, SQL, Node.js, React (Next.js), C

Tools: NextAuth.js, MongoDB, BerkeleyDB, IntelliJ, AWS, Jupyter Notebooks, Git, Docker, VScode

Interests: Competitive Powerlifting, Jiu Jitsu, Video Games