

Bidipta Roy

(516) 288-4658 | bidiptar@bu.edu | [linkedin.com/in/bidipta-roy](https://www.linkedin.com/in/bidipta-roy) | github.com/BidiptaRoy

Education

Boston University ~ *Bachelor of Science in Computer Science*

Boston, MA

- Relevant coursework: Data Structures and OOP, Software Engineering, Probability, Discrete Math, Computer Systems, Linear Algebra, Algorithms, Databases

Sep. 2023-May 2027

Technical Skills

Languages: Python, Java, JavaScript, C, HTML/CSS, x86 Assembly

Technologies: React, [Node.js](#), Express, Flask, Tailwind, REST APIs, MySQL

Developer Tools: Git, VScode, MongoDB Atlas, Vercel, Figma, Docker

Employment

Swim Instructor - Long Island Swim School

Garden City, NY

- Taught group lessons focusing on stroke fundamentals, technique improvement, and water safety for ages 4–12 using personalized training plans; taught 50+ students

Sep 2021 - Aug 2023

Swim Coach - SWIMtastic swim school

Hempstead, NY

- 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

May 2025 - Aug 2025

Projects

Nogi BJJ Trainer | *React, [Node.js](#), Express, MongoDB, Tailwind CSS*

November 2025

- 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 with 99.9% uptime
- Designed responsive UI with Tailwind and React Hooks, implementing CRUD operations for comment system, session storage, and achieved 95+ Lighthouse performance score

December 2025

Spotter | *Python, Flask, Javascript, HTML/CSS, MongoDB, OpenAI API, JWT*

- Implemented Flask backend with RESTful endpoints for challenges, workout logs, and activity feeds using a lightweight JSON store. Web app currently used by friends
- Collaboratively built a responsive multi-page frontend using JavaScript, HTML, and CSS, wiring UI forms to backend APIs
- Integrated OpenAI's API to generate personalized one-meal recipes based on user's preferences using structured JSON responses.

October 2025

NEWISE_GIS | DS-X Hackathon | *Python, HTML/JavaScript, Folium/Leaflet.js, GeoPandas, Pandas, Shapefiles*

- Developed an interactive web-based GIS platform featuring a navigable world map with dynamic choropleth visualizations of demographic and socioeconomic data (income, education, crime rates, life expectancy, population) across New England states and counties

Leadership and Community Involvement

Boston University Jiu Jitsu Club - member

Jan 2025-Present

- Practice, teach, and develop the martial art of brazilian jiu jitsu and conditioning

NY Monarch Jiu Jitsu Academy - member

May 2025-Present

- Train four days a week to develop advanced grappling technique and discipline

BU Hack4Impact Club - member

Sep 2025-Present

- Participate in workshops and collaborative web projects using JS, HTML/CSS, React