

Rohit Karnik

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EDUCATION

New Jersey Institute Of Technology

Newark, NJ

Bachelor of Science in Computer Science and Applied Mathematics

Expected May 2027

Relevant Coursework: Multivariable Calculus, Data Structures and Algorithms, Linear Algebra, Probability and Statistics

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, HTML, CSS

Frameworks: Spring Boot, React, FastAPI, OpenCV, Tailwind CSS, REST APIs

Developer Tools: Git, PostgreSQL, MongoDB, Jupyter, Maven, Github Actions

EXPERIENCE

Coding Instructor

Aug. 2022 - May 2024

Project Engage

Princeton, NJ

- Taught Java and Python programming to **25+** middle school students, covering foundational concepts, control flow, and **Object-Oriented Programming (OOP)** principles.
- Created 30+ coding challenges and 5 mini-projects to reinforce core programming skills.
- Improved student assessment scores by an average of **32%** from the start to the end of the course.

PROJECTS

Shoe Scout | *Python, FastAPI, MongoDB, Selenium, React*

[GitHub](#) | [Project](#)

- Developed a full-stack web app to aggregate and display real-time running shoe deals offering users an average savings of **18%** off retail price.
- Scraped **250+** shoes across 10+ brands from major retailer websites (Nike, New Balance, Running Warehouse, etc.) using Selenium.
- Used MongoDB as a persistent data store for shoe prices, images, and links, enabling fast data retrieval.
- Automated the scraping process using GitHub Actions and cron jobs, achieving **99% uptime** and ensuring data is refreshed every 6 hours

Fitness Tracker | *Java Spring Boot, PostgreSQL, React, Tailwind*

[GitHub](#)

- Developed a full-stack fitness tracker web application enabling users to log workouts, track progress, and visualize performance over time, supporting **100+ workout entries** per user.
- Designed RESTful APIs and a normalized PostgreSQL schema to store metrics like workout type, duration, intensity, and feel score, ensuring data accuracy and flexible data tracking.
- Secured user data with JWT-based authentication and Spring Security, eliminating unauthorized access.
- Improved frontend performance and UI consistency by utilizing React hooks and Tailwind CSS for styling, **reducing load times by 30%** and enhancing user interaction smoothness.

Sorting Algorithm Visualizer | *JavaScript, React, HTML/CSS*

[GitHub](#) | [Project](#)

- Implemented 4 distinct sorting algorithms (Merge, Insertion Bubble, Selection) from scratch in JavaScript.
- Implemented custom animation logic and DOM manipulation to display array updates smoothly during sorting.
- Enabled user-adjustable controls for sorting algorithm and array sizes ranging from **10** to **500** elements.

LEADERSHIP EXPERIENCE

Officer

Sept. 2022 - Sept. 2023

WWP South Business Club

West Windsor, NJ

- Led weekly sessions on economics and business strategy for **40+** students, fostering data-driven thinking.
- Organized 3 'Shark Tank' style pitch events, featuring a total of 15 student-led business proposals.
- Improved member engagement by **30%** by streamlining event logistics and curriculum planning.
- Sharpened leadership and structured problem-solving through managing projects in team-oriented settings.