

NIKUL PATEL

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EDUCATION

RENSSELAER POLYTECHNIC INSTITUTE (RPI)

Bachelor of Science

Major in Computer Science and Information Technology and Web Science

Cumulative GPA: 3.65/4.0; Dean's Honor List 2022-23

Relevant Coursework: Data Structures, Web Development, Computer Organization, Intro to Algorithms, Principles of Software

Troy, NY

Expected May 2026

SKILLS

Programming Languages: Python, C++, JavaScript, C, Java, PHP, TypeScript

Technologies / Libraries: React, SQL, Github, Git, NodeJS, Express.js, Linux, MongoDB, JSON, Selenium

Certifications: Oracle Cloud Infrastructure 2023 Certified Foundations Associate

Awards: 1st Place Winner, NSBE-SHPE Hackathon, Spring 2024 - (Google Gemini, React, Express.js)

WORK EXPERIENCE

RENSSELAER CENTER FOR OPEN SOURCE

Back End Technical Lead - CARTX

Troy, NY

December 2022 – Present

- Designed a backend system to make custom API calls, implemented web scraping routes using Python to retrieve data for over 1000 items in JSON format, and stored the information in a database, enabling in-depth data analysis.
- Configured a remote-accessible MySQL server, established communication with the database, resulting in a 50% reduction in data processing time, and responsible for CRUD operations.
- Collaborating with a team of developers to ensure smooth communication between frontend and backend components.

BIOMEDICAL ENGINEERING DEPARTMENT - RPI

Web Developer

Troy, NY

Aug 2023 – Present

- Initiated the development of a web-based academic system for Biomedical Students by web-scraping course information for over 46 majors from the college website and organizing it into SQL tables.
- Scheduled to design and implement RESTful APIs for efficient data retrieval and manipulation, ensuring seamless integration between the frontend interface and the backend database.

UNDERGRADUATE DATA STRUCTURES TEACHING ASSISTANT

Teaching Assistant

Troy, NY

Aug 2023 – Present

- Managing weekly lab sessions and office hours focused on Data Structures and Algorithms, overseeing student progress through checkpoints, and providing personalized academic support for C++ assignments.
- Efficiently assisting professors in scanning and grading exams for over 450 students, ensuring delivery of grading tasks within a single day.

PROJECTS

OPENAI-MICROSOFT BING IMAGE SEARCH INTEGRATION

Oct 2023

- Developed an innovative feature that uses OpenAI's image recognition to interpret content in pictures, prompting Bing API to provide insights and data regarding the identified subject.
- Implemented SQL and Firebase databases to establish a highly secured system for efficient storage and swift retrieval of data.

HACKRPI - TECHNOLOGY TEAM

Aug 2023

- Designed an interactive React-based maps page for HackRPI, an annual hackathon event at Rensselaer Polytechnic Institute, significantly improving navigation and data interaction for over 600 hackathon participants.
- Created a Python-based automation script that handled mass email distribution to organizers for improved communication.

VOICE-POWERED MATH SOLVER WITH CHATGPT & WOLFRAM ALPHA

Nov 2023

- Created an application that integrates ChatGPT and Wolfram Alpha to enable visually impaired users to solve mathematical equations through voice commands, enhancing accessibility in education.