

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

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.
- Implemented a secure login and logout system to ensure the security and integrity of the academic system.

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.