# NIKUL PATEL

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#### **EDUCATION**

Rensselaer Polytechnic Institute - Bachelor of Science

Troy, NY

Dual Major in Computer Science and Information Technology and Web Science

Expected May 2026

Cumulative GPA: 3.70/4.0; Dean's Honors List

#### **SKILLS**

Programming Languages: Python, Java, C++, JavaScript, C, PHP, HTML, Verilog

**Technologies / Libraries:** Angular, ASP.NET, React, NodeJS, Express.JS, Selenium, Azure, Docker **Databases / Tools:** SQL, MongoDB, Firebase, Github, Git, Linux, Postman, Visual Studio, JSON

Awards: 1st Place Winner, NSBE-SHPE Hackathon - Spring 2024

#### **WORK EXPERIENCE**

#### Consolidated Edison Company of New York, Inc.

New York City, NY

Computer Operations Intern - .NET Web API, Angular, C#, TypeScript

May 2024 - Aug 2024

- Developed an application for the Outage Scheduling System using Angular to automate outage report analysis, achieving an 90% reduction in time and minimizing error rates for senior system operators.
- Improved transformer analysis for 50+ substations by developing custom API routes in C# to retrieve historical peak loads and transformer ratings, performing contingency-based calculations, and evaluating overall system load.
- Achieved an 80% boost in efficiency by automating file generation and streamlining document integration with .NET scripting, and leveraged Con Edison's frontend UI library to enhance system functionality.

## Rensselaer Center for Open Source

Troy, NY

Project Lead - React, Node.js, Python, Selenium, MongoDB

Aug 2023 - Present

- Leading a team in developing CartX, a cost-optimizing shopping app, providing full-stack leadership with React for frontend and Node.js for backend, achieving up to 30% reduction in user shopping time.
- Architected and implemented RESTful API routes using Express JS and Selenium with Python for web scraping to extract data from 4+ major retail chains.
- Performed data normalization on over 10,000 items in JSON format, designed and administered CRUD operations with MongoDB and JavaScript, resulting in a 5x improvement in data retrieval speed.

#### Undergraduate Teaching Assistant, Data Structures and CS I

Troy, NY

Teaching Assistant - C++, Python, LLDB

Aug 2023 - Present

• Managing weekly lab sessions and office hours for Computer Science courses, overseeing student progress and providing personalized support for Python and C++ assignments, and assisting with debugging.

# **PROJECTS**

## Finance For All - 1st Place NSBE-SHPE Hackathon

Feb 2024

Google Gemini, React, Express JS, SQL

- Built a platform with React and Express JS that leverages Artificial Intelligence to simplify the comparison of banks for tasks such as account openings, credit cards, and loan interest rates, saving users hours of research time.
- Integrated Google Gemini to develop an interactive and responsive chatbot that assists users with financial literacy.

### OpenAI - Microsoft Bing Image Recognition Integration

Nov 2023

OpenAI Vision Model, React, Express JS

• Developed an innovative feature that uses OpenAI's Vision Model, trained on 400 million image-text pairs, to analyze pictures, and integrated it with Microsoft Bing Search Engine for retrieving related information from the web.

#### Voice-Powered Math Solver with OpenAI API and Wolfram Alpha

Oct 2023

React, Automatic Speech Recognition (ASR) System, Natural Language Processing (NLP)

• Created an application to enable visually impaired users to solve mathematical equations through voice commands, and leveraged advanced NLP and speech recognition to enhance educational accessibility.