Nouman Syed

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EDUCATION

Stevens Institute of Technology (Hoboken, NJ)   **Expected Graduation – May 2024**

Master of Science, Computer Science   GPA: 3.67

- Provost's Masters Scholar
- Relevant Courses: Web Programming, Database Management Systems, Software Testing Quality Assurance and Maintenance.

Mahatma Gandhi Institute of Technology (Hyderabad, India)   **2018 - 2022**

Bachelor of Technology, Computer Science and Engineering

- Presented multiple Seminars on "Regression Models and their applications in Machine Learning".

EXPERIENCE

Graduate Course Assistant - Web Programming | *NodeJS, TypeScript, Puppeteer, Axios, MongoDB, Canvas API*   May 2023 - Present

- Collaborate in designing assignments to facilitate an optimal learning experience for students.
- Develop grading scripts for accurately assessing and evaluating submitted assignments, reducing grading time from approximately 100 - 120 hours to a few minutes weekly for ~240 submissions.
- Conduct Office Hours and monitored Slack, actively assisting students by answering questions about their assignments, projects, as well as addressing any queries pertaining to course concepts and topics.

Open-Source Contributor (GitHub) | *Python, JavaScript, GnuPG, Docker*

- SecureDrop
  - Improved security requirements by updating the signature verification process in the SecureDrop project.
  - Upgraded performance of application by 30% while downloading various browsers, by using the lighter and more efficient gpgv verification tool along with keyring instead of gpg.
  - Achieved more efficient verification process, improved security, and reduced dependencies as a result.
- Resolved multiple issues by updating and enhancing documentation for projects like Dask, iPython, etc.

PROJECTS

Accessibility Testing Tool | *NodeJS, JSDOM, Axios, Mocha & Chai, Github Workflows*
- Developed a NodeJS tool for AA level WCAG 2.2 compliance, leveraging JSDOM for efficient HTML content manipulation on webpages.
- Enhances online experiences by achieving a 70% increase in accessibility and expanding the potential userbase by up to 21%.
- Utilized Mocha & Chai for a reliable testing framework and implemented Github Workflows for seamless integration and continuous testing, ensuring reliability and accuracy of accessibility assessment.
- Devised a severity ranking system for accessibility issues, facilitating efficient prioritization and resolution of high-impact issues.

PrioriQ | *MongoDB, NodeJS, Express, JavaScript, Handlebars, jQuery, Ajax, HTML+CSS*
- Engineered a robust distributed Task Management web application inspired by Trello and Asana.
- Implemented a sophisticated 'Priority Based Preemptive Scheduling' algorithm to automate and optimize task prioritization.
- Streamlined decision-making by dynamically prioritizing tasks based on their priority and deadlines, reducing prioritization time by 50%.
- Developed collaborative features that facilitate team communication and task coordination increasing team efficiency by 10%.

Calculator Programming Language | *Python, AST, typing*
- Created a custom calculator language in Python, prioritizing arbitrary precision for enhanced accuracy.
- Implemented an efficient lexer for input expression tokenization, leveraging Python's lexical analysis.
- Designed a parser with Abstract Syntax Trees (AST) for structured expression interpretation.
- Constructed an evaluator supporting interactive execution with advanced math operations and arbitrary precision.

SKILLS

Languages:

- Proficient: Python, JavaScript, SQL
- Prior Experience: TypeScript, Java, C, C++, HTML, CSS, PHP, Ruby, Swift

Frameworks and Libraries:

- Proficient: Node.js, React, Express, Flask, Handlebars, PyTest, unittest, Mocha & Chai, Jest
- Prior Experience: AJAX, JQuery, NextJS, pygame, pandas, numpy, scipy, SwiftUI, SwiftData

Other Technologies: Vim, VSCode, Git, Github, npm/yarn/bun, pip, Shell Scripting, REST APIs, GraphQL, PostgreSQL, MongoDB, CircleCI, GH Workflows, AWS Lambdas, Amazon S3, TypeORM, MikroORM.

Other Skills: Well versed in developing full-stack web applications with strong background in Backend and API development, Familiar with Agile methodologies including Scrum, Kanban, and Agile project management practices, Office Suite.