

SHYAM MAKWANA

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EDUCATION

Indiana University

Master of Science in Computer Science

Bloomington, Indiana

Aug 2022 - May 2024

Dharmsinh Desai University

Bachelor of Technology in Information Technology (GPA 4.0)

Nadiad, Gujarat

Jul 2018 - May 2022

Relevant Coursework: Data Structures and Algorithms, Artificial Intelligence, Software Engineering, Operating Systems, Distributed Computing, Computer Network, Compiler Design, Theory of Automata

SKILLS & INTERESTS

Languages: Java, Python, C/C++, C#, JavaScript, HTML, CSS, SQL

Frameworks/Libraries: React JS, Node JS, GraphQL, Angular JS, Express JS, Django, Bootstrap, Spring Boot, .Net, Hibernate, Pandas, NumPy, Matplotlib

Database: MySQL, MongoDB, Oracle SQL

Tools: Git, Docker, Visual Studio, Postman, Jupyter, Wireshark, Netbeans

WORK EXPERIENCE

Indian Space Research Organisation (ISRO)

Research and Development Intern

Ahmedabad, India

Dec 2021 - Mar 2022

- Developed an **Authentication Protocol** that gives access to the user (client) to access specific private services in the ISRO's network, which are used by more than **100 clients**.
- Modified the ISRO's current network architecture to Software Defined Perimeter model using **Socket Programming** and **C#** and added new features to it, increasing its efficiency by **20%**.

Four Clowns

Web Developer Intern

Ahmedabad, India

May 2021 - Jul 2021

- Worked with senior developers on development projects for the website throughout the various phases of the project life cycle, and applied knowledge of **MERN Stack** in an ongoing project.
- Suggested a new UI design for the website making it more user-friendly, which resulted in an increase in web traffic by **15%**.

PROJECTS

Network Admission Control using SPA | C++, C#, .Net

Dec 2021 - Mar 2022

- The primary objective is to access services and securely communicate authentication and authorization information across closed firewall ports, usually with the goal of opening specific ports to allow temporary access.
- The scope of this research work enables the SDP Gateway of any organization to distinguish authorized and unauthorized connection attempts while only needing to evaluate a single network packet.

Waste Food Management System | MERN Stack

Jan 2021 - Mar 2021

- MERN Stack Application for donating excess food from events, hotels, restaurants, and other locations to people those in need.
- The primary objective is to minimize food wastage & to deliver it to the needy ones, with Google Map API for accurate address and Sendgrid API for sending emails.

Content-based Book Recom System | Python, NLTK, Gensim, SciPy

May 2021 - Jun 2021

- Devised a system to determine which books are close to each other and visualize which groups of books have similar topics based on how similar discussed topics are.
- Diagnosed text of all books in the dataset using NLTK and curated a distance matrix, and systemized all the information about book similarities using SciPy through a dendrogram.

ACHIEVEMENTS

- Received Gold Medal, in presence of Padma Shri awardee, Dr. H. M. Desai for being the topper of the department.
- All India Rank (AIR) 09 in NCAT (National Creativity Aptitude Test) Exam Category 3.
- HackerRank Problem Solving (5 Star) and CodeChef (Highest Rating 1847 - 4 Star).