

RAKESH PASUPULETI

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EDUCATION

University at Buffalo, The State University of New York,

June 20204

Master of Science in Computer Science

GPA: 4.0/4.0

- **Relevant Coursework:** Analysis of Algorithms, Algorithms for modern Computation, Data Models and Query Languages, Operating System, Computer Architecture, Machine Learning, Computer Vision.

SKILLS & TOOLS

Languages: C, C++, C#, Java, Python, PHP, Solidity, Golang, SQL, R.

Database: MSSQL, MySQL, PostgreSQL, NoSQL, MongoDB.

Web Development: HTML, CSS, Bootstrap, JavaScript, TypeScript, React, Next.js, Node.js, REST API's.

Tools & Methodologies: Git, GitHub, OOP, Agile, CI/CD, SDLC.

Proficient Coder, Problem Solver And expert in Data structures and Algorithms.

WORK EXPERIENCE

Software Developer (Graduate Student), SUNY, Buffalo, NY: August 2022 – January 2024

- Developed and maintained responsive web applications using React.js, JavaScript, and HTML/CSS, ensuring cross-browser compatibility and enhancing user experience.
- Enhanced the performance and functionality of the web application through the optimization of front-end code, reducing load times by 30% and increasing user engagement by 20%.
- Collaborated with cross-functional teams to design, develop, and implement scalable backend solutions using SQL databases, improving data retrieval efficiency and system performance.
- Created and optimized SQL queries, stored procedures, and triggers to manage and manipulate large datasets, leading to a 20% increase in query performance.
- Implemented RESTful APIs to facilitate seamless communication between frontend and backend systems, resulting in a more cohesive and functional application architecture.

COMPUTER SCIENCE PROJECTS

NFT Marketplace for Code Snippets: Blockchain, Web3.js, Solidity, React, Bootstrap, JavaScript, [GitHub](#)

- Developed a decentralized application (DApp) enabling programmers to tokenize, buy, sell, and trade their code snippets in an NFT marketplace.
- Created a dynamic, responsive front end using React.js and Bootstrap, utilized Solidity for smart contracts, Ethereum as the blockchain platform, and Web3.js to interact with the blockchain.

Action Detection in Videos using Deep Learning: Python, TensorFlow, NumPy, GPU, [GitHub](#)

- Developed a real-time video action detection system for human action recognition using three custom Convolutional Neural Network (CNN) models.
- Achieved an 18% improvement in action recognition accuracy compared to the baseline Alex Net model on the AVA Actions dataset, which densely annotates 80 distinct atomic visual actions in diverse video clips.

Database Management System for Restaurants: Back-end, SQL, PostgreSQL, React, Node.js, [GitHub](#)

- Designed and implemented a comprehensive database management system tailored for restaurants, streamlining order processing and inventory management.
- Utilized MySQL for efficient backend operations and React/Node.js for a user-friendly front-end interface, leading to waste reduction and improved operational efficiency.

AWARDS & INVOLVEMENT

- State-level Baseball Player.
- National Cadet Corps (NCC) Certification, demonstrating discipline and commitment.
- Published a Research Paper in the International Research Journal of Computer Science.
- Presented a Project at the International Conference on "Artificial Intelligence and its Emerging Technologies 2k21."