SARFRAZ NAWAZ

linkedin.com/in/sarfraz-nawaz

github.com/informsarfu | +1 (623)-999-2785 | sarfraz98@asu.edu

Highly motivated graduate student pursuing Masters in Computer Engineering, dedicated to leveraging advanced technical skills and a passion for technology to address real-world challenges. With a focus on software development, I am eager to embrace new opportunities and make a meaningful impact on society. Currently seeking software development internship position for spring/summer 2024.

EDUCATION

Masters in Computer Engineering (Computer Systems), Arizona State University.   Jan 2023 - Dec 2024
Academic Coursework: Foundation of Algorithms, Introduction to Human Computer Interaction, Knowledge Representation & Reasoning.

Bachelors in Electronics and Communication Engineering, Crescent University.   Aug 2016 - Aug 2020
Academic Coursework: Computer Programming & Applications, Data Structures using C++, IOT Networking Technology.

EXPERIENCE

Associate System Engineer, Tata Consultancy Services, Bangalore.   Feb 2021 - June 2022
• Utilized tools like Grafana, Kafka, Kubernetes, and Oracle Enterprise Manager for testing and analyzing user story flows.
• Monitored the scheduling of Control-M jobs necessary for managing deployments in cloud using Oracle Enterprise Manager.
• Expertise in Load Runner, SQL, Postman, and SoapUI for scripting, monitoring and optimizing API calls of user stories with over 100k user portfolio accounts.

Natural Language Processing Intern, YSquare Technology, Chennai.   Jan 2020 - Feb 2020
• Used NLP techniques to pre-process and clean text data for chatbot training and testing.
• Implemented data scraping techniques to gather relevant information for the chatbot's training and enrichment to improve accuracy.
• Utilized spaCy and NLTK libraries for performing NLP tasks such as tokenization, stemming, lemmatization, and entity recognition.

Autosar Intern, Jasmin Infotech Pvt. Ltd., Chennai.   Feb 2019 - Aug 2019
• Participated in testing and validation to meet industry standards and regulations.
• Collaborated with the development team to ensure efficient performance and real-time responsiveness in automotive systems.
• Integrated Autosar software architecture and leveraged Aurix microcontrollers for enhanced automotive functionality, safety and performance.

Research Assistant, Crescent University, Chennai.   Dec 2020 - Dec 2021
• Assisted in the design and analysis of 3D printable patch antennas specifically tailored for wearable applications.
• Conducted extensive research on substrate materials such as polylactic acid & polyurethane to determine their flexibility for wearable applications.
• Utilized CST Studio software for modeling & simulation, optimizing antenna parameters such as resonant frequency, bandwidth, and radiation pattern.
• Published in a Springer journal for the Virtual International Conference on Futuristic Communication and Network Technologies (VICFCNT-2021).

PROJECTS & PUBLICATIONS

NoteVault - A Secure Note Taking Web-Application Using Flask   June 2023
• Demonstrated proficiency in Flask web development, database management, and front-end design.
• Utilized SQLAlchemy for efficient database management, ensuring reliable storage and retrieval of notes.
• Implemented user authentication using API-based login systems to ensure secure access to user accounts.
• Leveraged HTML, CSS, and JavaScript to create an intuitive and visually appealing front-end interface for a convenient user experience.

Chatbot using PyTorch   Apr 2023
• Conducted rigorous testing, refined responses based on user feedback, and optimized performance.
• Implemented tokenization, stemming, and the bag-of-words model for natural language understanding.
• Designed the implementation of training a chatbot model with two hidden layers and softmax activation function.

Tetris using Pygame   Feb 2023
• Integrated sound effects and visual feedback using Pygame moduleto enhance the gaming experience and engage users.
• Employed object-oriented programming principles to create modular and maintainable code, enhancing code readability and reusability.
• Implemented core gameplay mechanics, including block movement, rotation, and line clearing, adhering to the principles of classic Tetris game.

A4 Sheet Vending Machine   Nov 2019
• Showcased expertise in hardware prototyping, system integration, and embedded programming.
• Demonstrated strong problem-solving skills in troubleshooting and refining the vending machine's functionality.
• Programmed and integrated the L298N Motor Driver with Arduino Uno for the working of the vending machine function.

TECHNICAL SKILLS

• **Language**   - Python, C++, SQL, HTML/CSS, JavaScript.
• **Libraries/Tools** - OpenCV, Git, Github, NLTK, SpaCy, NumPy, PyTorch, Pygame, Flask, Kubernetes, Kafka, Grafana, Jinja, SQLAlchemy, Bootstrap.
• **Softwares**   - SoapUI, LoadRunner, Control-M, CST Microwave Studio, VS Code, Postman, Adobe Photoshop, Illustrator, Premier Pro, MS Office.