Sofia Panuganti

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EDUCATION

University of Maryland, Baltimore County   Baltimore, MD
Master of Science, Computer Science   August 2023
- 3.76/4.0 GPA
- **Relevant Coursework:** Advanced Operating Systems, Design and Analysis of Algorithms, Advanced Computer Architecture, Data Visualization, Malware Analysis

Jawaharlal Nehru Technological University   TG, Hyderabad, India
Bachelor of Technology, Computer Science and Engineering   June 2021
- 3.72/4.0 GPA

SKILLS

Programming Languages: C++, Python, Java
Web Development: JavaScript, ReactJS, HTML, CSS, Bootstrap, Node.js, Express.js
Operating Systems: Linux, Windows, macOS
Database Management: SQL, MySQL, MongoDB
Software Development: Object-oriented programming, data structures, algorithms, version control using Git

PROJECTS

Image Texture Synthesis using Graphcut   May 2022
- Independently conceptualized and executed an advanced image texture synthesis project using Graphcut techniques in Python, utilizing Git for version control and Jupyter Notebook for code organization
- Demonstrated strong problem-solving skills by implementing the Ford-Fulkerson algorithm to stitch patch regions from sample images, resulting in seamless output images with high visual fidelity

Distributed System with Multicasting and Locking   December 2021
- Successfully implemented Berkeley's algorithm for clock synchronization, causal-ordered multicasting with vector clocks and distributed locking algorithms to protect a shared file in a distributed system
- Developed precise communication and synchronization between processes in a distributed system using C++ on Linux, employing multi-threading, socket programming, and file I/O operations

Encoder Decoder Model for Text Summarization   June 2021
- Collaborated with team members to implement deep learning sequence-to-sequence techniques using Pandas and Keras, resulting in an advanced text summarization model with a 92% success rate
- Exhibited effective communication in presenting project updates and integrating feedback from the team

WORK EXPERIENCE

Graduate Student Assistant, *UMBC, Department of CSEE*   January 2022 – June 2023
- Employed knowledge of VirtualBox, Linux, Windows and advanced malware analysis tools such as IDA Pro and Wireshark to provide comprehensive insights and assessment of coursework impacting 200 students
- Provided academic support to over 60 undergraduate students, grading assignments, and coding projects

Teaching Assistant, *JNTU, Department of CSE*   January 2019 – June 2019
- Facilitated individualized tutoring and problem set instruction for 25 students in Computational Mathematics course, utilizing MATLAB and Python, resulting in a 10% increase in class grade

VOLUNTEER EXPERIENCE

Vice Chair, *Hyderabad Youth Assembly*   December 2018 – December 2019
- Led and managed a team of 25 to successfully organize and execute United Nations SDG goals, positively impacting 1,000 underprivileged individuals and showcasing strong leadership and management skills