Viraj Sabhaya

+1 682-704-1967 | sabhayaviraj23@gmail.com | linkedin.com/in/vsabhaya23 | github.com/virajsabhaya23

EDUCATION

The University of Texas – Arlington <div align="right">May 2024</div>
Bachelor of Science in Computer Science <div align="right">*Arlington,Texas*</div>

EXPERIENCE

Research Assistant | *IT Lab, University of Texas at Arlington* — **September 2022 – Current**
- Developed analysis module for complex Multi-Layer Network (MLN) datasets, like Airline hubs and LinkedIn connections, overcoming challenges in studying entities. Resulting in identifying and classifying communities with 85% accuracy.
- Uncovering underlying patterns within MLN data, resulting in a 75% improvement in pattern detection efficiency.
- Enhanced user experience by developing visually appealing representations, leading to a 60% increase in actions with the analyzed data and MLN structures.

Software Engineering Intern | *Securonix* — **June 2022 – August 2022**
- Contributed to design, development, and maintenance of Securoni's NextGen SIEM 2.0 Technology, resolving real-time customer issues on Securonix cloud.
- Conducted automated test using cypress on the SNYPR software, ensuring 100% successful execution of test cases.
- Learned and applied big data technologies such as Kafka, and Spark on the DataSource project, leading the development of an automation tool for the QA team. Resulted in 90% reduction of the team's operational load.

Research Assistant | *IT Lab, University of Texas at Arlington* — **April 2022 – June 2022**
- Created a Visualization module, integrating interactive elements like hovers and ledgers. Resulted in 80% clearer insights into the MLN data.
- Improved data understanding of the overall results for MLN analyzed results using community network visualizations.

Student Lab Assistant | *Office of Information Technology, UT Arlington* — **January 2021 – April 2022**
- Maintained critical IT infrastructure, including computers, kiosks, printers across 4+ computer labs, playing a key role in ensuring seamless operational support for over 1,000 students and faculty.

ACM Officer | *ACM, University of Texas at Arlington* — **October 2023**
- As an Officer in the ACM club, I am currently a part of the development team for organizing major events like hackathons, attracting 300+ participants and fostering a community of tech innovation among students.

SKILLS

Technical Skills: Python, C/C++, HTML, CSS, Javascript, GCC/G++, Lucid chart, Git, Jira, XCode, SQL Server Management Studio, Agile Software Practices, Object Oriented Programming, JSON, React Native

Soft Skills: Teamwork, Communication, Problem-Solving, Critical Thinking

PROJECTS

Load-N-Ask | *Python, OpenAI, LLM, FAISS, Langchain* | won 1st prize for best use of Streamlit – HackUTA 2023
- Created a Streamlit web app utilizing OpenAI's API to fetch answers from uploaded PDF/CSV documents.
- Optimized data storage and reduced costs by implementing chunking and vector conversion techniques, resulting in a 50% reduction in storage requirements.

ERS, BECHT Web-Dashboard | *C#, .NET Core, Telerik, Microsoft SQL Server*
- Developed a web application, to mitigate risks minimizing health, safety, and environmental accidents. The application implements an Equipment Reliability Strategy (ERS) to effectively identify failure mechanisms.
- Facilitated efficient client and site management by developing an intuitive user interface for the addition and tracking of industrial equipment and their maintenance history.

Rastor Graphic Editor | *OpenCV, C++, Mouse event handling, Image manipulation*
- Developed an editor enabling tools such as Eyedropper, Crop, Pencil, and Paint Bucket for image manipulation.
- Incorporated OpenCV in C to build this editor.

Arlington Sprouts Database Management | *MySQL, Python, Apache webserver, XAMPP*
- Created a comprehensive database for Arlington Sprouts Store.
- Supported data-driven decision making by executing SQL queries to extract relevant information from the database, resulting in a 60% reduction in data retrieval time.
- Improved operational efficiency by developing an intuitive web interface, enabling seamless interaction with the database.

Operating System | *C/C++, gcc, parallelism, Arena-allocator, LinkedList, Shell, Fat32*
- Developed a feature-rich mshShell for basic shell functionality, Fractal for faster image generation using thread-based parallelism, memory allocator with multiple algorithms, and a reliable file system.

AWARDS

Nokia Outstanding Professional Computer Science Student | *College of Engineering, UT Arlington* — April 2023