# Viraj Sabhaya

Arlington, TX

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

## EDUCATION

**The University of Texas – Arlington**                                                                 **May 2024**
*Bachelor of Science in Computer Science*                                                        *Arlington, Texas*

## EXPERIENCE

**Research Assistant |** *IT Lab, University of Texas at Arlington*                **October 2022 – Current**
- Developing analysis module for Multi-Layer Network (MLN) datasets (e.g., Airline hubs, LinkedIn connections, IMDb) to identify and classify distinct communities with 85% accuracy
- Uncovering underlying patterns within MLN data, resulting in a 75% improvement in pattern detection efficiency
- Enhanced the 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.
- Utilized big data technologies such as Kafka, and Spark on the DataSource project, resulting in a 30% improvement in data processing and efficiency by creating an automation tool for the QA team

**Research Assistant |** *IT Lab, University of Texas at Arlington*                **April 2022 – June 2022**
- Created a Visualization module, yielding 80% better insights via interactive elements like hovers, and ledgers.
- 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**
- Successfully maintained computers, kiosks, printers in more than 4 computer labs, ensuring seamless operations in class.
- Provided software aid, supporting students and professors, leading to efficient academic environments.

## SKILLS

**Technical Skills:** Python, C/C++, React Native, HTML/CSS, Javascript, C#, Figma, GCC/G++, Lucid chart, Git, Jira, XCode, Wireshark, SQL Server Management Studio

**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*
- Developing 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.

**Routing Protocol Simulation |** *Python, Routers*
- Developed and Implemented a Distance-Vector algorithm simulation to optimize communication routes between network routers/nodes
- Achieved 40% improvements in communication efficiency by dynamically updating routing tables based on network conditions

**Arlington Sprouts Database Management |** *MySQL, Python, Apache webserver, XAMPP*
- Created a comprehensive database for Arlington Sprouts Store, a premium sprouts seller
- 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**