

VIRAJ SABHAYA

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Experience

Software Engineer

Altera Digital Health

05/2024 - Current

- Collaborate with cross-functional teams to refine requirements and testing, achieving a **77% test pass rate** and reducing post-deployment defects.
- Spearhead database uplift projects and Proxy API development using **SQL Server**, Python, **ASP.NET Webcore API**, and **Postman** along with producing technical documentation and **Azure DevOps** work items.
- Optimize server architecture (load balancers, IIS pools) reducing servers from **14 to 7, saving 50% resources and maintenance costs.**
- Act as an **AI Engineer**, leveraging **Microsoft Copilot** and **AI models** to automate documentation, improve SQL query optimization, and accelerate development cycles. **Implemented a JSON prompting model, raising result accuracy by 50% compared to sentence prompt.**

Software Developer

IT Lab

09/2022 - 05/2024

- Developed the **MLN Dashboard**, enabling analysis and visualization of complex datasets (airline networks, LinkedIn, IMDB).
- Enhanced algorithms (Louvain, Infomap), improving **pattern detection efficiency by 75%.**
- Built visualization module with Pandas, NetworkX, Matplotlib; added tooltips & comparisons to **improve clarity by 80%.**

Software Engineer, Intern

Securonix

Addison, TX, USA

06/2022 - 08/2022

- Automated Cypress tests for SNYPR SIEM, reducing QA workload by **75%.**
- Implemented Kafka & Spark for data projects, **building automation tools that cut manual errors** and boosted process **efficiency by 60%.**
- Applied Scrum practices, leading sprint-based delivery with cross-functional teams.

Skills

- **Programming Languages:** Python, JavaScript, Java, C, C++, C#, TypeScript, Bash, Swift, PL/SQL, HTML, CSS
- **Frameworks & Libraries:** ReactJS, NodeJS, Flask, FastAPI, Material UI, Angular, .NET Framework, .NET Core, Spring boot, JUnit, Cypress, Selenium, iOS App Development, Pandas, NumPy, SciKit-learn, Pytorch, TensorFlow
- **Technologies & Tools:** RestAPI, WSDL, JSON, XML, http Protocol, SDLC, ETL, SSDT, SSIS, Agile, Kanban, JIRA, Git, GitHub, TFS, Linux, UNIX, Visual Studio, Power BI, Tableau, Splunk, Figma, Hadoop, Postman, SoapUI
- **Databases:** MySQL, PostgreSQL, Microsoft SQL Server, MongoDB, DynamoDB, VectorDB, Supabase
- **Cloud & DevOps:** AWS, Azure DevOps, Kubernetes, Docker, Terraform, VMware, CI/CD
- **AI/ML Technologies:** Azure AI, LLMs, ChatGPT, Microsoft Copilot, ETL pipelines, MLOps, **Computer Vision** (Object Detection, Image Segmentation), prompt engineering
- **Health IT:** HL7 FHIR, Multum, Formulary, Intelligent Medical Objects (IMO), EHR, HIPAA compliance
- **Soft Skills:** Committed, Eager to Learn, Innovative, Communication skills, Attention to detail, Time-management, Motivated

Technical Projects

Load-N-Ask (HackUTA Hackathon)

- Designed and developed a web application using Streamlit that leverages OpenAI's API to answer queries from uploaded PDF and CSV files. It employs chunking and vector conversion techniques to optimize data storage, **achieving a 75% reduction in operational costs.**
- Key technologies powering this solution include Python, Langchain for LLM, FAISS for vector search, and Git for version control.

Equipment Reliability Strategies web dashboard (Senior Design)

- Created a web application to mitigate risks by minimizing health and safety issues through effective identification of failure mechanisms using Equipment Reliability Strategies (ERS).
- Developed an intuitive user interface that enables efficient client and site management by allowing users to add and track industrial equipment along with its maintenance history.
- This project was built using ASP.NET MVC, ASP.NET Core, and ASP.NET Web Forms frameworks, with Microsoft SQL Server as the database. Design and prototyping tools like Figma and Lucidchart were used to create and visualize the user experience and workflows and delivered in Sprints.

Education

University of Texas at Arlington, Bachelor of Science in Computer Science

- **Relevant Coursework:** Object Oriented Programming, Data Structures and Algorithms, Operating Systems, Software Testing & Maintenance, DBMS, Artificial Intelligence, Machine Learning, Computer Networks, Autonomous Robotics, Information Security, Fundamentals of Software Development

Achievements & Publications

- **Featured in Times Square, NYC:** Won 1st prize for the development of LinkLeap: URL Shortener among 300+ participants (02/2024)
- **HackUTA:** Secured 1st place for the by **Major League Hacking (MLH)** (10/2023)
- **Nokia Outstanding Professional CS Student:** Received academic excellence award from Computer Science department (2023, 2024)
- **IEEE BigDataService:** [MLN-Visualizer: Interactive Visualization of Graphs and Multilayer Network Analysis Results](#) (07/2023)
- **VLDB Conference:** [Complex Data Analysis using Multilayer Networks](#) (09/2025)