

YAMINI ULAGANATHAN

(872) 985 4516 | uyamini1996@gmail.com | [LinkedIn](#) | [Website](#)

EDUCATION

- Northwestern University**, *Master of Science in Computer Science*, **GPA: 3.9/4.0** 09/2021 - 06/2023
Relevant Coursework : Intro to Artificial Intelligence, Machine Learning, Natural Language Processing, AI Analytics, AR/VR Studio, Practicum in Intelligent Information Systems, Design & Analysis of Algorithms, Scalable Software Architecture
- CMR Institute of Technology**, *Bachelor of Engineering in Information Science and Engineering* 07/2015 - 07/2019
Relevant Coursework : OS, Computer Networks, Software Testing, Data Mining & Warehousing, Cryptography & Network Security

WORK EXPERIENCE

- Software Engineer**, *Buffett Institute for Global Affairs, Northwestern University* 11/2023 - Present
- Independently designed and integrated specific roles and implemented a robust role-based access control system with tailored privileges, ensuring both security and efficiency in accessing the Terror Early Warning System (NTEWS).
 - Enhanced predictive analysis & reporting capabilities from 12 reports/day to 120/day, & developed admin functionalities for management.
 - Rearchitected the SQL database to reduce latency by 45% and increase overall system responsiveness and update efficiency by 80%.
- Software Engineer**, *Manhattan Associates* 12/2019 - 08/2021
- Developed scalable end-to-end features and integrated them into the supply chain software using Java and SpringBoot, with in-memory cache and Oracle DB for data storage/retrieval.
 - Improved maintainability and decreased latency by 20% by refactoring existing features into a micro-service based architecture.
 - Collaborated with a cross-functional team to architect and develop APIs to fetch and update inventory data using Java and SpringBoot.
 - Elevated user satisfaction by 87% by redesigning the UX to seamlessly view and update warehouse data using JSP.
 - Provided real-time troubleshooting, updates and changes for clients by deploying the software on GCP ([Article by Google](#)).
- Software Engineer Intern**, *Manhattan Associates* 08/2019 - 10/2019
- Designed a REST API-driven web application to allow users to add, update, view, and escalate employee feedback using React, Java, and Oracle DB.
 - Engineered two distinct UI views for employees & administrators using React Router, ensuring a seamless & tailored user experience. Built a robust back-end system that exposes role-restricted APIs using SpringBoot & JPA to block 3000 unauthorized requests a month.
 - Increased efficiency by 40% by developing an automated system to escalate unresolved feedback in a User Acceptance Testing environment using Java.
- Automation Engineer Intern**, *Quess Corp* 02/2019 - 08/2019
- Spearheaded a project to create a web-based visualization dashboard (AngularJS) to view employee & departmental performance.
 - Built and optimized the tool to run in ~20s to collect, clean, & analyze data, saving 4.5h of manual work time.
 - Increased efficiency by 40% by developing an automated project tracker that showed progress, contributions, milestones & next steps for projects using UiPath (RPA) & Python.
 - Successfully deployed the project tracker on AWS cloud infrastructure, ensuring scalability, reliability & accessibility for stakeholders.

SKILLS

- Programming Languages:** Java, C++, JavaScript, Python, C, PHP, Objective-C, VBA
- Databases:** MySQL, Oracle DB
- Frameworks:** *Proficient:* Spring Boot, React, ExpressJS and NodeJS (with Mocha/Chai), Hibernate, Flask. *Familiar:* Django, Ignite
- Tools:** Google Cloud Platform (GCP), JIRA, Jenkins, Git, GitHub, Salesforce, UiPath (Robotic Process Automation), Figma, Xcode

SELECT PROJECTS

- TrendTalk** Developed a visualization and analytics tool using Matplotlib that performs predictive NLP-based analysis of trends on social media about fashion. Created NER and Topic Models that identified the entities with an accuracy of 97% and 93% respectively in the dataset.
- drTE** (Automated Data Cleaning) : Developed a macOS application for cleaning large spreadsheets, with an accuracy of 90% to speed up the workflow of data scientists, saving 80% of their total work time. Implemented a UI that allows the user to upload files, set configurations, download the cleaned file, and view a summary graph of the changes made, with a user satisfaction of 92%.
- Event Interpreter:** Built a CLI tool that performs NLP-based web scraping for awards shows to extract information. Applied sentiment analysis to analyze red carpet looks, controversies, humor, sentiments, etc. surrounding the event using NLP libraries like spaCy, NLTK, & RegEx.
- Recipe Transformer:** Developed a CLI tool that performs NLP-based transformation of recipes (takes URL input) to and from vegetarian, different quantities or cuisine, gluten or lactose-free, etc. using several NLP libraries like NLTK, BeautifulSoup4.

RESEARCH AND OTHER EXPERIENCE

- Course Credential:** **Generative AI by Google Cloud**, includes LLMs, Image Generation, Attention Mechanism and Transformers. 08/2023
- Northwestern University, Tiilt Lab (SportsSense)** 09/2022 - 06/2023
 - Developed an interactive UI to inspire computational curiosity in children through visual art creation using React.
 - Generated art from motion data using BBC micro:bit sensors worn on the wrist during sports play, using p5.js & JavaScript.
- Northwestern University, Peer Mentor / Teaching Assistant** (Course: CS330 Human Computer Interaction) 01/2023 - 03/2023
- Open source contribution:** **Google Blockly**, Updated block-dynamic-connection to use JSON toolbox 08/2022 - 08/2022
- Publication:** **Smart Crop Monitoring - IoT, Cloud, Machine Learning & Android App**, Project to aid farmers with daily practices using technology, published in the International Journal of Engineering & Advanced Technology.

LEADERSHIP AND AWARDS

- Commencement speaker**, Northwestern University, Class of 2023 (06/2023)
- Data Science Fellow**, Correlation One Class of 2023, selected among the 90 out of 4000 applicants (09/2022)
- Presented a technical seminar** on "Emotion Recognition using Facial Expressions", WiC conference (04/2022)
- Newspaper Publication**, Home Automation Project, Selected among top 3 of 2019 engineering batch, published in a local newspaper (08/2019)