Bamberg, Germany
Personal website
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Harshit Vavaiya

Full-stack Developer

github/Harshit-Vavaiya
linkedin/harshitvavaiya

As a dedicated student of computer science with a strong foundation in full-stack development and system design, I aim to leverage my skills and academic background to excel in supporting scientific research endeavors.

Work Experience

Student Assistant Hilfswissenschaftler March 2023 - Present
Otto-Friedrich Universität Bamberg *Bamberg, Germany*

- Actively involved in the development and implementation of the TAG (Graph Analysis Tool) project.
- Contributing to the design and development of the TAG software involving coding, testing, and debugging to ensure the tool's functionality and user-friendliness.
- Working on enhancing the capabilities of TAG by implementing new features and functionalities, such as graph visualization, statistical analysis, and property testing algorithms.
- Contributing to the creation of user manuals and documentation for TAG, ensuring that users have access to clear and concise instructions for effective utilization of the tool.

Web Developer Internship January 2022 - June 2022
Metanoia Infotech *Surat, India*

- Engaged with clients to understand their project requirements, goals, and expectations.
- Worked on website development projects using both PHP and React JS, depending on project requirements.
- Applied Agile development methodologies, including Scrum and Kanban, to streamline project management and development processes.

Education

MSc - International Software Systems Science October 2022 - Present
Otto-Friedrich Universität Bamberg, Germany
Relevent Coursework: Cyber Physical Systems, Advanced Data Management, Algorithms, Distributed Systems Architecture & Middleware, Tree Decomposition Algorithms, Applied Machine Learning with R

Bachelor of Technology - Information Technology June 2018 - June 2022
P. P. Savani University, India
Relevent Coursework: Data Structures and Algorithms, Mobile Applications, Advanced Java Technology, Advanced Web Technology, Artificial Intelligence, Data Science, Blockchain Technology

Skills

Communication :
English (fluent), German (A2)

Programming Languages :
Python, JavaScript, C++, HTML/CSS, PHP

Tools :
Git, Unix Shell, LaTeX, Docker, AWS Cloud, Google Cloud Platform

Frameworks:
Next JS, React JS, Node JS, Java Spring, Tailwind CSS

Database :
MongoDB, PostgreSQL, MySQL, Google Firestore

Projects

TAG Ongoing

React JS

TAG allows users to easily create and customize graphs, making it a versatile tool for generating various types of graphs and networks. TAG incorporates a wide range of graph algorithms, enabling users to apply algorithms such as Graph Coloring algorithm, breadth-first search, and more for solving graph-related problems.

Application Tracking System Ongoing

Java | *Spring* | *PostgreSQL*

Application tracking system is a platform to keep track of job applications for job applicants. The user can add, modify or delete the job application. It is built using Java Spring and PostgreSQL as database.

Prost.de 2022

Java | *Spring* | *AWS*

Developed an online beverage store, Prost.de, offering a wide selection of alcoholic and non-alcoholic drinks. The platform enables users to purchase and order items for home delivery, features an Admin Panel for administrators, and utilizes a MySQL database with role management.

Edith 2021

Python | *Flutter*

Developed Edith, an Android application that leverages Natural Language Processing (NLP) techniques and Google APIs to provide users with accurate answers to their questions. Edith serves as an intelligent virtual assistant, making information retrieval and interaction more efficient and user-friendly.

Academic Seminar

Algorithms on Graphs With Bounded Local Tree Width August 2023

Otto-Friedrich Universität Bamberg

Presented a comprehensive seminar on the topic of "Algorithms on Graphs with Bounded Local Treewidth." Explored advanced algorithms and computational techniques for solving NP problems efficiently through Fixed-Parameter Tractability (FPT) algorithms applied to graphs with the Local Tree Width parameter. Discussed the theoretical foundations, algorithmic approaches, and practical applications of this research area, highlighting its significance in addressing complex computational problems.

Certifications

Natural Language Processing (**Kaggle**)	November 2021
Accenture Discovery Program (**Accenture**)	June 2021
Intermediate Machine Learning (**Kaggle**)	December 2020
Intro to Machine Learning (**Kaggle**)	December 2020
Data Analysis with Python (**IBM**)	June 2019
Data Visualization with Python (**IBM**)	June 2019
Data Science Methodology (**IBM**)	April 2019
Data Science Hands-On with Open-Source Tools (**IBM**)	March 2019

Hobbies

I love reading books on a wide range of topics. Also, I am fond of building and working on new projects, such as software, a website, a mobile application or an algorithm. Among my other pleasures are travelling, listening to classical music and playing chess.