



Sheetal Satheesh

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github.com/Sheetal-Satheesh

EDUCATION

Master's in Computer Science(Data Science)

University of Paderborn

05/2022 - 04/2024

Courses

- **A Library for Interpretable Node Classification in RDF Knowledge Graphs(XAI)** [Thesis]: The iRGraphsML library, developed as part of my thesis, utilizes three distinct methods within a consistent workflow for interpretable node classification on RDF Knowledge Graphs. Comprehensive unit tests were implemented to ensure the accuracy and robustness of the methods(Grade 1.7)

WORK EXPERIENCES

Data Scientist

Data Science Research Group(DICE) at Paderborn University

08/2022 - 04/2024

Achievements/Tasks

- Applied advanced Machine Learning (ML) techniques to analyze and derive insights from diverse scientific and industrial datasets (e.g., SML-BENCH)
- Co-authored the paper "**AutoCL: Automating Concept Learning with AutoML**," accepted for presentation at **World Conference on eXplainable Artificial Intelligence(XAI) 2024**
- Enhanced and Streamlined ML development efficiency with AutoML, cutting deployment times, leveraging insights from Gokul Mohandas's **MLOps** course
- **Contributed** by identifying and resolving an issue in **Owlready2**, which is a **Python package** designed for ontology-oriented programming
- Designed and implemented a novel approach combining concept learners with neural networks for multiview image classification, enhancing interpretability and accuracy
- **Tech Stack: Python, Pandas, Numpy, Sci-kit learn, Keras, DGL, SPARQL, RDFLib, Ontolearn, owlready2, Flake8, TensorFlow, Pytorch ,PyG, Pytest/unittest, MLOps**

Web Developer

Heinz Nixdorf Institut

06/2021 - 06/2022

Paderborn

Achievements/Tasks

- Developed dynamic and cross-browser compatible webpages utilizing HTML5, CSS/CSS3, JavaScript, and jQuery. Implemented client-side validation with JavaScript and jQuery
- Designed and developed Flask RESTful API endpoints to handle AutoML task submissions and trigger task execution
- Collaborated with cross-functional teams to ensure continuous improvement and effective communication in project management
- **Tech Stack:Javascript, HTML/CSS, Bootstrap, WordPress, Flask, Python, RESTful API**

Senior Systems Engineer

Infosys LTD.

06/2016 - 12/2019

Thiruvananthapuram, India

Project: Australia's National Broadband Network and Belgium Based Telecommunication Company

Achievements/Tasks

- Automated manual workflows using Python scripting and Selenium in C# for web flow automation, reducing errors, and optimizing efficiency
- Designed a Tkinter-based UI for Excel report generation and produced daily client reports using Python scripts with Pandas/NumPy for data analysis and visualization
- Developed a new feature and enriched the UI for a Belgium Based Networking company, aimed at enhancing user experience and increasing engagement
- Conducted unit tests to verify the functionality and performance
- **Tech Stack: Python, Pandas, Numpy, VBA, C# (Selenium), Pytest/unittest, React**

SKILLS

Language and Libraries: Python, C#, Pandas, numPy, Keras, spaCy, scikit-learn, anaconda, owlready2, flake8, PyTorch, TensorFlow, VBA, MLOps

Frontend: HTML/HTML5, CSS, Javascript, Jquery, Flask, ReactJS, React18 with TypeScript

Database: sqlite, Mapbasic, MySQL, SPARQL

OS: Windows, Linux

IDE: Visual Studio, Atoms, PyCharm, Eclipse

Microsoft Tools: MS Word, Ms Excel, MS Power Point, Sharepoint, MS Teams

Version Control System and Project Management Tool: GIT, Jira, Agile, Scrum

Certification: AZ-900(Azure)

MAIN PROJECT

Digital Pentomino

- Development of Pentomino game for primary students working with Researchers from Berlin. Implemented features such as **Split the board and strategies** to enhance critical thinking skills. Maintained iterative development approach based on user feedback.
- <https://pentomino-digital.de/V5/prerelease/>
- **Tech Stack: JavaScript, Git, CI/CD**

PROJECTS

GAME-HUB

Developed a gaming website inspired by RAWG, featuring dynamic data fetching for genres, categories, and popularity. Implemented a responsive UI with Chakra-UI, optimized image loading, and integrated dark/light mode for enhanced user experience. Included filters for genre and platform, and displayed critic scores from RAWG.

<https://github.com/Sheetal-Satheesh/Game-Hub/tree/main>

Computational Argumentation

Conducted Data Acquisition and structured data extraction and Developed approaches for Argument Mining and Assessment on text corpora

INTERESTS

Reading(Article, Blogs, Webtoons, Manga, Novel(Fantasies, Fiction, Chick lit, Thriller, Adventure))

LANGUAGES

English

Deutsch(A2)