



# Sheetal Satheesh

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📍 Paderborn, Germany

🐙 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)