



Venkata Srikanth Varma Datla

ABOUT ME

Master's Graduate in Computer Science from the Sapienza University of Rome & my Master's thesis was on the topic - Smart-Parking solutions for Intelligent Transport Systems. | My current research is on Intelligent Transport Systems, specifically employing Bluetooth Low Energy (BLE) technology to enable real-time passenger and vehicle occupancy detection within smart transportation environments. | Enthusiastic and Passionate about Design, Evaluation, and Implementation of Interactive Computing Systems. |

WORK EXPERIENCE

 **Sapienza Università di Roma** – Rome, Italy

Research Assistant

[05/2021 – 09/2022]

Research work is primarily conducted on Smart Parking and its related technologies, conducting extensive Literature Research on Smart Parking Systems and developing new Smart Parking Applications contributing to the research work.

Another area of Research Work is conducted on "SeismoCloud" which is a warning system for earthquakes (Earthquake Early Warning – EEW) based on a low-cost seismometers' network. SeismoCloud is made by smartphones and IoT sensors and is a community network about the tracking of seismism whose goal is an Early Warning, i.e. an immediate alert to the citizens of an earthquake area.

I am also involved in the Planning, Design, and Testing of the "Scatti.Premialita" website, which is a services web platform for the Sapienza University benefit. I was responsible for the client-side functionality using Javascript in this project.

 **ENJOY ROME** – Rome, Italy

Social Media Management - Database Management

[02/2020 – 09/2020]

As a Database Manager, I was responsible for maintaining the company's custom CRM, which is used in Tourism related sales settings, data entry, monitoring, and maintaining customer's details as well as planning, implementing, managing, and monitoring the company's CRM Database.

As a Social Media Manager, my job role was planning, implementing, managing, and monitoring company's Social Media strategy to increase brand awareness, improve Marketing efforts and increase sales.

 **PMWorldLibrary.net** – Rome, Italy

Research Intern - Human Computer Interaction & Information Systems

[05/2017 – 07/2018]

PM World is a virtual organization reflecting the 21st-century reality of a connected world where individuals and organizations worldwide can collaborate to create, share, and apply new knowledge.

During the Internship, the main objective was to implement and operate multiple research studies in areas like Human-Computer Interaction & Information Systems. Throughout the internship, I was searching for appropriate Research Papers in the above mentioned fields and writing reviews for these papers so that they can be added into the digital library.

 **iKO Media Group** – Rome, Italy

Network Operations Center Technician

[01/2018 – 03/2018]

Managing, Maintaining, and Handling the datacenter and the networking devices as well as Initiating and Resolving Incident Management tickets for Hardware and Software malfunctions were the main tasks of my job.

 **SAPID Inc** – Visakhapatnam, India

Junior Web Developer

[03/2014 – 04/2016]

Working as a Junior Web Developer and developing the UI layout and front-end programming for web applications. Developing website mock-ups for clients to ensure quality control and client satisfaction before the project.

 **All India Tennis Association** – India

Professional Tennis Player

[2006 – 2013]

EDUCATION AND TRAINING

Doctor of Philosophy - Ph.D.

Sapienza Università di Roma [10/2022 – 12/2025]

City: Rome | Country: Italy | Website: <https://www.uniroma1.it/en/pagina-strutturale/home>

Master's degree

Sapienza Università di Roma [09/2016 – 01/2021]

City: Rome | Country: Italy | Website: <https://www.uniroma1.it/en/pagina-strutturale/home>

Bachelor's Degree

Andhra University [2010 – 2013]

City: Visakhapatnam | Country: India | Website: <https://www.andhrauniversity.edu.in/>

Intermediate Education

Ascent Classes [2008 – 2010]

City: Visakhapatnam | Country: India | Website: <https://www.ascentclasses.edu.in/about.php>

Secondary School

Siva Sivani Public School [1996 – 2008]

City: Visakhapatnam | Country: India | Website: <https://www.sivasivanipublicschoolukkunagram.com/>

LANGUAGE SKILLS

Mother tongue(s): Telugu

Other language(s):

English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

Hindi

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Italian

LISTENING A2 READING A2 WRITING A2

SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

[2022]

[Implicit Interaction Approach for Car-related Tasks On Smartphone Applications - A Demo](#) Implicit interaction is a possible approach to improve the user experience of smartphone apps in car-related environments. Indeed, it can enhance safety and avoids unnecessary and repetitive interactions on the user's part. This demo paper presents a smartphone app based on an implicit interaction approach to detect when the user enters and exits their vehicle automatically. We describe the app interface and usage, and how we plan to demonstrate its performances during the conference demo session.

The International Conference on Advanced Visual Interfaces (AVI 2022) (Frascati, Rome, Italy)

[2024]

[An Approach to Leverage Artificial Intelligence for Car-Parking Related Mobile Applications](#) This paper describes an approach that combines smartphones, context awareness, implicit interaction, and machine learning to ease the design, distribution, and updating of AI-powered features. By following a series of steps, including identifying user needs, determining the scope of AI intervention, collecting and training data, incorporating user feedback, and continuously updating the model that runs in the smartphone, we design context-aware car parking apps that provide personalized and practical assistance to drivers. The proposed approach is particularly relevant when minimizing distractions and optimizing user support is crucial.

The 16th ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS 2024) (Cagliari, Italy)

[2024]

[Enhancing Interface Design with AI: An Exploratory Study on a ChatGPT-4-Based Tool for Cognitive Walkthrough Inspired Evaluations](#) This paper introduces CWGPT, a ChatGPT-4-based tool designed for Cognitive Walkthrough (CW) inspired evaluations of web interfaces. The primary goal is to assist users, particularly students and inexperienced designers, in evaluating web interfaces. Our tool, operating as a conversational agent, provides detailed evaluations of a user-specified task by intelligently guessing the subtasks and actions required to accomplish them, answering the standard CW questions, and providing helpful feedback and practical suggestions to improve the usability of the analyzed interface. For our study, we selected a group of web applications designed by students from a Web and Software Architecture course. We compare the outcome of the CWs we executed on ten web apps against the corresponding CWGPT analyses. We then describe the study we conducted involving five author-students to assess the tool's efficacy in helping them recognize and solve usability issues. In addition to introducing a novel adaptation of ChatGPT, the outcomes of the described experience underscore the promising potential of AI in usability evaluations.

17th International Conference on Advanced Visual Interfaces (AVI 2024) (Arenzano, Genoa, Italy)

[Towards Context-Aware UX in Automated Mobility: BLE Based Passenger Detection via Smartphones](#) Understanding how people navigate urban environments is central for designing intelligent transportation systems and adaptive interfaces, particularly in the context of Human Automated Vehicle (HAV) interaction. In this paper, we investigate whether Bluetooth Low Energy (BLE) scanning on smartphones can detect a user's mode of transport by passively sensing the presence of nearby devices. Unlike traditional approaches that rely on Global Positioning System (GPS) or motion sensors, our approach determines whether a user is traveling alone or in a shared space, such as a metro or bus, by analyzing the quantity and stability of nearby BLE signals. We developed a lightweight iOS app that logs BLE advertisements and trained a classifier to differentiate between cars, buses/trams, and metros. Our findings indicate that BLE patterns are typically consistent enough to support practical classification, demonstrating strong performance in detecting cars and other vehicles while providing valuable insights for shared

transportation modes. The system avoids sensitive privacy permissions, and integrates into a user-friendly interface that provides feedback and allows for corrections. We explore how this approach can enhance passenger detection and contextual adaptation in automated vehicles. This includes adjusting interfaces, improving safety features, and facilitating adaptive behaviors. The findings reveal that although BLE-based sensing has limitations in precision, it provides a low-cost and privacy-aware alternative to traditional sensing strategies used in mobility applications.

Publisher: CHIItaly 2025: 16th Biannual Conference of the Italian SIGCHI Chapter

Automating Form Completion with Large Language Models Manual form filling, especially when technical data must be retrieved from various documents, remains tedious and error-prone. We present a prototype system using Large Language Models (LLMs) to automate and streamline form completion, demonstrated through a case study in the MICS project, which supports circular economy practices. Our approach combines automatic extraction with human-in-the-loop review, significantly reducing user effort and time while maintaining accuracy. User study results indicate improved usability and satisfaction, but highlight the need for safeguards against AI "hallucinations" and further integration.

Publisher: CHIItaly 2025: 16th Biannual Conference of the Italian SIGCHI Chapter

Assessing Large Language Models Adoption in Need Finding: an Exploratory Study This paper explores using large language models (LLMs) in the early stages of the user-centered design (UCD) process, particularly in defining user needs. While UCD emphasizes understanding users' needs, preferences, and contexts, LLMs introduce new possibilities for enhancing this process by assisting designers rather than replacing them. Through example prompts and case studies of three mobile app developments, this study investigates how LLMs can generate user profiles, needs, and personas. We highlight the potential benefits of LLM integration into UCD, such as increased efficiency and deeper insights, as well as inherent limitations like the lack of emotional depth in AI-generated interviews and the challenges in detecting inaccuracies. The findings underscore the importance of human involvement to ensure the fidelity and relevance of user simulations, suggesting a balanced approach for integrating AI tools in UCD.

Publisher: Engineering Interactive Computer Systems. EICS 2024 International Workshops Publisher

Engineering Large Language Model Agents for Transforming Unstructured Descriptions into Structured Input Structured input tasks, such as form filling and data entry, are common across domains but can be time-consuming and cognitively demanding, especially when users must convert free-form descriptions into rigid formats. This paper explores using Large Language Model (LLM) agents to support transforming unstructured natural language and document-based inputs into structured outputs aligned with pre-defined schemas. We describe a modular pipeline that takes as input a natural language description, optional supporting documents (e.g., PDFs, spreadsheets), and a form schema. The LLM processes these inputs to generate structured key-value pairs with confidence scores, which can be used to populate forms automatically while allowing users to review and adjust the output. The system follows a mixed-initiative approach, emphasizing human oversight and editable results. Principles from human-centered AI and adaptive interface engineering guide our design. It aims to be domain-agnostic and compatible with existing infrastructures using the Model-Context Protocol (MCP). This work contributes a practical implementation and design perspective on integrating LLMs into structured input workflows.

Publisher: EICS 2025: Workshop on Engineering Interactive Systems Embedding AI Technologies (EISEAIT)

LICENSES & CERTIFICATIONS

[02/2024]

Complete Web & Mobile Designer: UI/UX, Figma, +more

Udemy Credential ID -> UC-aa8a5a4a-61dc-4e8c-9a82-c39b98a117e7

Publication of Data Research

Sapienza Università di Roma

User Experience Design and Research (UX) - 66 Hrs

LinkedIn