Università degli Studi di Messina, Italia
Dipartimento di scienze matematiche e informatiche,
scienze fisiche e scienze della terra

Soggetto: proposta di tirocinio

ID	PTI_distefano salvatore_01/12/2024 18.18.46
Data	01/12/2024 18.18.46

Supervisore del progetto

Cognome	distefano
Nome	salvatore
Dipartimento	mift
Laboratorio	hpca
E-mail	sdistefano@unime.it
Numero di telefono	

Co-Supervisore del progetto

Cognome	
Nome	
Posizione	
Dipartimento	

Università degli Studi di Messina, Italia
Dipartimento di scienze matematiche e informatiche,
scienze fisiche e scienze della terra

Laboratorio	
E-mail	
Numero di telefono	

Dettagli del progetto

Titolo	Web 3.0

Descrizione dettagliata: The Spatial Web is a new paradigm for the internet that seamlessly integrates the digital and physical worlds. It aims to create a more interconnected and intelligent environment where devices, people, and AI agents can interact seamlessly, regardless of their physical location.
The Spatial Web merges the physical and virtual worlds, transcending geographic and national boundaries to create a global commons for expression and imagination. This convergence, enabled by decentralizing technologies, artificial intelligence, autonomous vehicles, robots, and the Internet of Things, heralds a new era of interconnectedness. The Spatial Web is built on the foundations of the Internet.

Key characteristics of the Spatial Web:

- Contextual Awareness: Devices and systems on the Spatial Web can understand their physical surroundings and the context of their interactions. This enables them to adapt their behavior and provide more relevant services.
- Interoperability: The Spatial Web promotes interoperability between different devices, systems, and platforms, allowing for seamless data exchange and collaboration.
- AI Integration: AI plays a crucial role in the Spatial Web, enabling devices to learn, reason, and make decisions autonomously.
- Ethical Considerations: ethical considerations are important in the development and deployment of Spatial Web technologies, ensuring that they are used for the benefit of society.

Potential applications of the Spatial Web:
- Smart Cities: The Spatial Web can enable the creation of smart cities with intelligent infrastructure, efficient transportation systems, and personalized services.
- Healthcare: It can revolutionize healthcare by enabling remote monitoring, telemedicine,

Università degli Studi di Messina, Italia
Dipartimento di scienze matematiche e informatiche,
scienze fisiche e scienze della terra

and personalized treatment plans.
- Manufacturing: The Spatial Web can optimize manufacturing processes, improve quality control, and reduce downtime.
- Autonomous Systems: It can facilitate the development of autonomous vehicles, drones, and robots that can safely navigate and interact with the physical world.

IEEE is driving the development of Spatial Web standards to ensure that this technology is developed responsibly and ethically. By establishing a common framework for interoperability and security, the IEEE aims to accelerate the adoption of the Spatial Web and unlock its full potential.

The Spatial Web, including the Hyperspatial Modeling Language (HSML) and the Hyperspatial Transaction Protocol (HSTP), creates a seamless digital-physical reality, leveraging augmented and virtual reality and integrating shared values such as privacy, data ownership, and autonomy by design. The Spatial Web is an ecosystem of interoperable, autonomous AI agents based on open standards including HSML and HSTP.

https://spatialwebfoundation.org/swf/the-spatial-web-standards/

Durata (mesi – max 12)	<<Durata in mesi>>
Durata (ore)	<<Durata in ore>>
Numero di posizioni aperte	4

Competenze richieste dal tirocinio

Requisiti tecnici: web technologies, programming	
Altri requisiti	

Università degli Studi di Messina, Italia
Dipartimento di scienze matematiche e informatiche,
scienze fisiche e scienze della terra