2023-2024

Mentee	Mentor	Topic of the Project
Luis Fernando Torres	Li Cheng	Analyzing and Tracking Children's walk pattern using Artificial Intelligence
Hegel Emmanuel Pedroza Villalobos	Dr. Ryan Corey	Towards Realistic Electric Guitar Performance Generation. Presenting "REG": A Real Electric Guitar Dataset with Annotated Notes, Techniques, Chords, and Scales.
Wallace Costa de Abreu	Iran Roman	Detection and localization of a sound source relative to a listening device
Guillermo Buendia Camacho	Désiré Sidibé	Next-Gen Agriculture: Few-Shot Learning for Strawberry Disease Detection
Tharindu Wickremasinghe	Marco Duarte	Research the connections between NLM denoising and research the connections between NLS denoising and structured sparsity for compressive imaging
Zhu Li	Dr. Nagendra Kumar	TTS for sarcasm
Devraj Raghuvanshi	Shekhar Nayak	Deep Attention-based Architectures for Multimodal Sarcasm Detection
Hung Tien Tran	Dr. Sneha Das	Inclusive speech processing
Pedro Roberto Chumpitaz Flores	Domenico Ciuonzo	ANTISP: Advancing Network Traffic Classification through Statistical Signal Processing
Hector Francisco Chahuara Silva	Gonzalo Mateos	Online Proximal-ADMM for Graph Learning from Streaming Smooth Signals
Emiliano Acevedo Piotti	Dr. Magdalena Fuentes	Adapt prototypical models for sound classification to different domains and acoustic conditions by describing the conditions at deployment time
Mariia Shpir	Nadiya Shvai	Controllable image generation with the application to license plate recognition

2021-2022

Mentee	Mentor	Topic of the Project
Julia Machnio	Saman Sargolzaei	Investigate the longitudinal impacts of Alzheimer's disease on structural and functional brain connectivity networks when probed by Blood Oxygenation Level Dependent (BOLD) functional Magnetic
Jialu Li	Shrikanth Narayanan	Building a Mandarin-English Code-Switching ASR for Understanding Language Acquisition in Bilingual Children
Sachini Chandanayake	Arvind Rao	Evaluate machine learning algorithms that can be used to predict the genetic status of tumors based on routine H&E images with the long-term goal of facilitating equitable access to molecular medicine practices regardless of geographic or financial constraints.
Shantosh Cumarasurier	Koutras Athanasios	Develop and test existing as well as new machine learning and deep learning techniques for recognizing different categories of inner spoken utterances by subjects.
Giovana Morais	Magdalena Fuentes	Design a self-supervised model for computational rhythm analysis, in particular beat and tempo estimation. We will build our model based on a state-of-the-art system, explore different self-supervised training strategies (pretext tasks) and contrast our model's performance with supervised alternatives.
Leya Barrientos	Daniele Giacobello	Improvement of Electromyographic (EMG) Biofeedback using Spatial Audio
Nishanth Mudkey	Domenico Ciuonzo	RUNNER: RIS-assisted Decision Fusion in Sensor Networks
Atreyee Saha	Philip N. Garner	Develop a low-resource ASR model in the context of atypical speech.
Mistura Muibi-Tijani	Touqeer Ahmad	Resource Efficient Mountainous Skyline Detection using Deep and Shallow Learning