

Saandeeep Aathreya

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RESEARCH INTEREST

AFFECTIVE COMPUTING, MACHINE LEARNING, DEEP LEARNING, COMPUTER VISION

EDUCATION

PhD in Computer Science

UNIVERSITY OF SOUTH FLORIDA

Advised by Prof. Shaun Canavan

Tampa, FL | Dec 2023

Bachelor of Science in Computer Science

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Mysore, India | July 2015

PUBLICATIONS

- **Task-based Classification of Reflective Thinking Using Mixture of Classifiers** ACII | 2021
S. Aathreya, L. JIVNANI, S. SRIVASTAVA, S. HINDUJA, S. CANAVAN
- **Recognizing Emotion in the Wild using Multimodal Data** ICMI | 2020
S. SRIVASTAVA, S. Aathreya, S. HINDUJA, S. JANNAT, H. ELHAMDADI, S. CANAVAN
- **Three-level Training of Multi-Head Architecture for Pain Detection** FG | 2019
S. Aathreya, S. HINDUJA, S. CANAVAN

WORK EXPERIENCE

UNIVERSITY OF SOUTH FLORIDA | RESEARCH ASSISTANT (RA)

Tampa, FL | July 2020 - Present

- Involved in development of a robust **DeepFake Detection** technique accompanied by creation of **DeepFake dataset** using SOTA methods.
- Analysed and modelled facial expressions using **Vision-based** techniques and implemented **supervised** learning using deep learning methods.

INFOSYS | TECHNOLOGY ANALYST

Mysore, India | Sep 2015 – July 2019

- Acting lead for a team involved in development and maintenance of 40+ mortgage business applications.
- Designed end-user reports and dashboards leveraging **SQL/SSIS** to submit to business users.
- Developed enterprise level applications from scratch under **Agile** methodology.

PROJECTS

AUTOMATIC OPENFACE EXTRACTOR

PYTHON, DOCKER

Utilized the openface docker tool to extract useful features from a face image. This was fed to **machine learning classifiers** for downstream analysis.

AUTOMATIC POISSON BLENDING

PYTHON, PYTORCH

Performs Poisson blending on images for fake object creation. The pipeline included image segmentation using Detectron2.

REALNVP

PYTHON, PYTORCH, SHELL

Re-implementation of RealNVP **generative** algorithm in PyTorch framework to generate realistic fake images on multiple GPU nodes.

SKILLS

Languages: Python, C++, C#, C, SQL

Libraries/Frameworks: PyTorch, TensorFlow, Pandas, Scikit-learn, Matplotlib, UMAP

Others: Git, L^AT_EX, VSCode, Linux, Rally, Distributed Computing in PyTorch