Pankaj Chejara

https://pankajchejara23.github.io

pankajchejara23@gmail.com.com | | pankajchejara23 (skype)

EDUCATION

PH.D., DATA ANALYTICS
Tallinn University
Expected 2024 | Tallinn, Estonia

MTECH, COMPUTER ENG.
Malviya National Institute of Technology
June 2012 | Jaipur, India

MCA, COMPUTER APP.
Rajasthan Technical University
June 2010 | Kota, India

BSC, MATHEMATICS
University of Rajasthan
May 2007 | Jaipur, India

SKILLS

DATA MODELING
Signal Processing
Audio/Video Data Processing
Statistical Inference
Time Series Analysis
Machine Learning
Deep Learning
Natural Language Processing

LIBRARIES
Pandas, Numpy
Scipy, Matplotlib
Seaborn, Scikit-learn
Pytorch, NLTK

RESEARCH
Problem Solving
Communication
Analytical Thinking
Scientific Writing
Attention to Details

LINKS

Github:// **pankaj**
LinkedIn:// **pankajchejara**
Scholar:// **pankajchejara**

EXPERIENCE

TALLINN UNIVERSITY | Developer/Researcher
Sep 2019 – Till date | Tallinn, Estonia

- Managed the gathering, cleaning, and pre-processing of **audio-video and log data** from Estonian schools to serve as inputs to **collaboration quality prediction model**
- Built **random forest models** to predict different types of collaboration behaviors during group works in Estonian classrooms
- Analyzed **facial features (action units)** to identify **markers** of high quality group work
- Led product development of collaboration quality monitoring application and developed web-based version of a Hardware prototype (Raspberry Pi) to capture and analyze audio, video, log from group's meeting
- Handled **front-end and back-end development** responsibilities using Python's Django, Bootstrap, SQL, JQuery, and Google Speech-to-Text API
- Integrated a real-time dashboard to visualize the group dynamics based on speaking participation and speech-to-text data
- Conducted **usability testing** with different stakeholders, including teachers, researchers, students, to understand perceived ease-of-use and usefulness of a collaboration quality monitoring system

- **Energy-sustainable scenarios designing application**
  – Development of a map-based prototype featuring interactive visualization for the Portugal region. This innovative tool empowers users to explore diverse energy generation scenarios and their impact on climate
  – Managed **front-end and back-end development** responsibilities using Python's Django, Bootstrap, Java script and Plotly

IIITM | Researcher
Aug 2016 – June 2018 | Gwalior, India

- Performed **comparative analysis of various community detection algorithms** on social-network datasets
- Proposed **a machine learning based approach** to predict information diffusion phenomenon in social networks.
- Integrated a small module in Moodle LMS to routinely capture user's self-reported emotional state measures during learning activities

- **YouTube video watching behavior tracking application**
  – Development of a **module for Moodle LMS** to capture video watching behaviors of students using YouTube API