

KUMAR SHUBHAM

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EDUCATION

International Institute of Information Technology Bangalore

Masters by Research - Data Science

Supervisor : [Dr. Dinesh Babu Jayagopi](#), [Dr. G. Srinivasaraghavan](#)

CGPA: $3.78/4.0 = 9.45/10.0$.

Thesis : AI for social psychology

Bangalore, India

Aug 2018 – Present

LNM Institute of Information Technology

Bachelors in Electronics and Communication

CGPA: $7.96/10.0$.

Jaipur, India

Jul 2012 – Apr 2016

PUBLICATIONS

Learning a deep reinforcement learning policy over the latent space of a pre-trained GAN for semantic age manipulation

Kumar Shubham, Gopalakrishnan Venkatesh, Reijul Sachdev, Akshi, Dinesh Babu Jayagopi, G. Srinivasaraghavan. *International Joint Conference on Neural Network (IJCNN)*, 2021. ([DOI : 10.1109/IJCNN52387.2021.9533685](#))

Hybrid unsupervised and supervised multitask learning for speech recognition in low resource languages

K.M Srinivasa Raghavan, **Kumar Shubham**

Workshop on Machine Learning in Speech and Language Processing(MLSLP), Interspeech. 2021. ([MLSLP 2021](#))

One-shot domain adaptation for semantic face editing of real world images using StyleALAE

Ravi Kiran Reddy*, **Kumar Shubham***, Gopalakrishnan Venkatesh, Sriram Gandikota, Sarthak Khoche, Dinesh Babu Jayagopi, Gopalakrishnan Srinivasaraghavan. (**equal contribution**)

arxiv submission, 2021. (<https://arxiv.org/abs/2108.13876>) (Under review)

An opportunity to investigate the role of specific nonverbal cues and first impression in interviews using deep fake based controlled video generation

Rahil Vijay, **Kumar Shubham**, Emmanuelle Patricia Kleinlogel, Laetitia Renier, Marianne Schmid Mast, Dinesh Babu Jayagopi.

Workshop on Corpora And Tools for Social skills annotation (CATS), *International conference on multimodal interaction (ICMI)*. 2021.

Conventional and Non-conventional job interview methods: A comparative analysis between two countries

Kumar Shubham, Emmanuelle Patricia Kleinlogel, Anaïs Butera, Marianne Schmid Mast, Dinesh Babu Jayagopi.

International conference on multimodal interaction (ICMI), 2020. ([DOI: 10.1145/3382507.3418824](#))

A regularization on Lagrangian twin support vector regression

Muhammad Tanveer, **Kumar Shubham**.

International Journal of Machine Learning and Cybernetics (Journal), 2017. ([DOI: 10.1007/s13042-015-0361-6](#))

Smooth twin support vector machines via unconstrained convex minimization

Muhammad Tanveer, **Kumar Shubham**.

Filomat (Journal), 2017. (<https://www.jstor.org/stable/26194958>)

An efficient regularized K-nearest neighbor based weighted twin support vector regression

Muhammad Tanveer, **Kumar Shubham**, Mujahed Aldhaifallah, SS Ho.

Knowledge-Based Systems(Journal), 2016. ([DOI: 10.1016/j.knosys.2015.11.011](#))

An efficient implicit regularized Lagrangian twin support vector regression

Muhammad Tanveer, **Kumar Shubham**, Mujahed Aldhaifallah, KS Nisar.

Applied intelligence(Journal), 2016. ([DOI: 10.1007/s10489-015-0728-0](#))

RESEARCH EXPERIENCE

Embodied conversational agent

Mentors: [Raj Tumuluri](#) (Openstream.ai) & [Dr. Dinesh Babu Jayagopi](#) (IIIT - Bangalore) March 2021 – Present

As part of a collaborative project between IIIT-B and Openstream.ai, I am leading a team from IIIT-B to create a conversational agent which can interact with a human and take appropriate verbal & nonverbal actions based on user response. The agent analyze the multimodal features of the user like facial expression, prosodic features and activity based features to generate appropriate dialogue and empathetic behavior using SAIBA framework.

AI for social psychology

Mentors: [Dr. Marianne Schmid Mast](#) (UNIL, Switzerland) Feb 2019 – Present

Worked on the application of deepfake and pose transfer based generative models for social psychology based experiments. We are exploring different methods and tools to facilitate the causal experiments in controlled environment.

Mortality and disease prediction

Mentors :[Dr. Vaibhav Ranjan](#), (Xerox Research Center, India) Dec 2015 – Jan 2016

Worked on mortality and disease prediction for patients admitted in ICU. For this we used different vitals,labs and medicine information provided by hospitals for the admitted patients and explored machine learning based approaches to predict early complication prediction system.

INDUSTRIAL EXPERIENCE

Dataweave software pvt ltd

Bangalore, India

Data engineer, Data science Dept.

2016 – 2018

As part of a full time job, I have worked on content base image retrieval algorithms and developed infrastructure to match different product from fashion and footwear categories in a pool of billions of data point from E-commerce sites like Amazon, Walmart, e.t.c.

My team developed an unique solution to search counterfeit products on E-commerce sites, which bagged prize for one of the most innovative startup solution provided by companies in india, by the chamber of commerce of the IT industries ([NASSCOM](#)).

SKILLS

Languages

Python, Javascript, c++, Java

Frameworks& database

Lucene, SOLR, Elastic Search, Kafka, Celery, Redis, Git

Python Libraries

Pytorch, Tensorflow, Pandas, Numpy, Scikit-Learn, OpenCV

HONORS AND AWARDS

Travel grant to pursue research in Switzerland (IIIT- Bangalore) 2019

Speaker, Data Science Developer Summit (Fifth Elephant, Bangalore) ([video](#)) 2018

Finalist, Xerox Research Innovation Challenge (Xerox, India) 2016

Open source contribution (DeepDetect) ([Commit](#)) 2016

Chairperson, IEEE student branch (LNMIIT Jaipur) 2016

Winner, Jaipur Hackathon (Jaipur startup community) 2015

Semi finalist, Texas Innovation Challenge (Texas Instruments, India) 2015