Kumar Shubham

Research Scholar (MS By Research - Data Science) - IIIT Bangalore Advisor: Prof. Dinesh Babu Jayagopi, Prof. G. Srinivasaraghavan

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EXPERIENCE

Multimodal Perception Lab, IIIT-Bangalore — Research Scholar

AUGUST 2018 - PRESENT

- Working on a project to generate sign language gestures for speech and hearing-impaired people to facilitate efficient communication.
- Developing a cost-effective motion capture generation process using a depth camera.
- Developing an efficient user and avatar interaction platform for language teaching scenarios.

Dataweave Software Pvt Ltd, Bangalore — Data Engineer (Data Science Team – Semantics)

June 2016 - July 2018

- Developed algorithms and infrastructure, for instance matching over a dataset of billions of products in the fashion category.
- Developed multi-label classifiers, to tag different attributes within the clothing category.
- Developed algorithms and infrastructure to identify counterfeit products over e-commerce platform like Walmart, Amazon e.t.c

Xerox Research Center, Bangalore — Winter Internship

Dec 2015 - Jan 2016

- Developed models to classify different diseases, based on time series data of labs, vitals test and prescribed medicines of patients.
- Developed a model to predict the chance of mortality based on time series data of labs and vitals tests.

SKILLS

Programming Language: C, C++, Python, Java, JavaScript

Deep Learning Library: Tensorflow, Keras

Search Engine Platform: Solr, Elastic Search, Lucene

Machine Learning Library: Scikit-learn, NLTK, Opencv

Big Data Platform:Kafka, FluentD, Celery, Kibana, Redis

AWARDS

Speaker - Fifth Elephant, 2017 Topic: Augmenting Solr's NLP Capability with deep learning features to match Images. (LINK)

Top 50 AI game-changer

Award - NASSCOM

The counterfeit project, which I and my team worked on during my stay at Dataweave got awarded as one of the most innovative idea within the AI discipline by Nasscom.

(LINK) (LINK)

Runner-up of Xerox Research Innovation Challenge -2015. In a machine learning, competition organized by the Xerox research center, India. Our team secured second position among 3000 participants.

(LINK)

PROJECTS

Model robustness by casual modeling — IIIT-Bangalore

Dec 2018 - May 2019

- Developing a procedure to include casual relationship within model training process to make deep learning model robust to adversarial attacks.
- Work is being supervised by : Dr. G. Srinivasaraghavan.
- Link of project : https://github.com/kyrs/NCC-experiments

Open source contribution — DeepDetect

Jan 2016 - May 2016

- Integrated tensorflow platform with deepdetect architecture.
- Contribution made it easier for a normal developer without any background in tensorflow or deep learning to use existing model and platform with ease.
- Work was supervised by **Dr. Emmanuel Benazera**.
- Link of project: https://github.com/jolibrain/deepdetect/pull/103

PUBLICATION

- An efficient regularized K-nearest neighbor based weighted twin support vector regression. — *Knowledge based System* (<u>LINK</u>) | Citation -25
- A regularization on lagrangian twin support vector machine.
 International Journal of Machine Learning and cybernetics
 (LINK) | Citation -10
- An efficient implicit regularized lagrangian twin support vector regression. — Applied Intelligence (LINK) | Citation - 12

EDUCATION

IIIT, Bangalore — MS By Research, Data Science Aug 2018 - present | CGPA - 3.74/4.0

LNMIIT, Jaipur — *B*-Tech, Electronics and Communication July 2012 - April 2016 | CGPA - 7.96 | 10

Languages

English Hindi

Relevant Courses

Probabilistic Graphical Model
Maths for Machine Learning
Advance Visual Recognition
Neural Network and
Reinforcement Learning

Online Courses

Reinforcement Learning -David Silver (<u>CODE</u>)

Deep Bayes