Deepak Karkala

Looking for full time or freelancing position as Data Journalist, background in Machine Learning and Data Analytics.

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[Portfolio] [GitHub] [Linkedin]

Education

2015 – 2018 **Master of Science**
EPFL, LAUSANNE SWITZERLAND
COMMUNICATION SYSTEMS

2007 – 2011 **Bachelor of Engineering**
RVCE, BANGALORE INDIA
ELECTRONICS AND COMMUNICATION

Projects

How to measure similarities in rhythms of songs ? **Feb 2020**

This project aimed at measuring rhythmic similarity of two songs developing a novel method of visualizing the rhythm of a song and determining the most unique songs, most similar song pairs, most unique artists. [Project]

Airbnb and the tale of many cities **Sep 2018**

An investigative report of Airbnb's constant battle against city governments. This project explored what makes Airbnb so popular ? Who are the players in the battle against the company ? What has Airbnb done to counter these issues ? [Project]

Anomaly Detection in Sensor Data **April 2018**

This thesis project involved developing a predictive maintenance algorithm aimed at detecting the presence of abnormalities in heating energy consumption in apartments using data captured by IoT sensors. [Project]

Debunking the fear of rise of AI **June 2019**

An attempt to explain the underlying workings of today's AI systems and thereby reduce the fear and apprehension among public about the rise of AI. [Project]

Image scene understanding using Torch **July 2017**

This project aimed to interpret the scene using deep learning algorithms. It involved detecting and localising the objects, determining the relations between objects in the image by training Convolutional Neural Networks using the Torch framework.

Tracking the Covid19 outbreak in India **May 2020**

A report on India's coronavirus story: how the outbreak unfolded, the current situation, state-wise analysis and an attempt to raise awareness about the need for social distancing. Also developed an interactive exploratory tool for detailed analysis of the Covid19 statistics and figures in India. [Project]

Skills

Programming	Python, JavaScript, C++
Data Analytics	Deep learning (PyTorch)
	Python (scikit learn, numpy, pandas)
	d3.js, Spark, SQL, AWS
Journalism	Investigative reporting, Data-scraping
	Data Story-telling, Data-Visualisation
	Sports Data-Sabermetrics

Work Experience

Jun 2018 – Jan 2020
eSMART Technologies Renens Switzerland
DATA ANALYTICS ENGINEER
Working on data analytics and anomaly detection in IoT sensor data of buildings.

Feb 2017 – Jul 2017
NEC Labs America Princeton USA
MACHINE LEARNING RESEARCH INTERN
Working on deep learning algorithms for object detection in images using Torch framework.

Mar 2012 – May 2015
Signalchip Innovations Bangalore India
DESIGN ENGINEER
Joined the semiconductor startup as the fifth employee and was involved in design and development of Signal Processing algorithms for Wireless Communications - 3G (WCDMA) and 4G (LTE).

Jun 2011 – Feb 2012
Indian Institute of Science Bangalore, India
JUNIOR RESEARCH FELLOW
Developed efficient algorithms for image reconstruction in Diffuse Optical Tomography using MATLAB.

Journal Publications

Medical Physics - 2012
Data-Resolution based Optimization of the Data-Collection Strategy for Near Infrared Diffuse Optical Tomography. [Link]

IEEE JSQTE - 2012
Mesh simplification based on edge collapsing could improve computational efficiency in near infrared optical tomographic imaging. [Link]

Patent

Method and system for symbol level interference cancellation at a receiver for multiuser detection. [Link]