Deepak Karkala

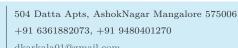
2+ years experience with Masters in Data Science, looking for positions in Machine Learning, AI and Data Science domains.



GitHub

Linkedin





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http://deepakkarkala.com https://github.com/deepak-karkala

https://linkedin.com/in/deepak-karkala

Education

2015 - 2018Master of Science

EPFL, LAUSANNE SWITZERLAND

COMMUNICATION SYSTEMS

2007 - 2011Bachelor of Engineering

RVCE, BANGALORE INDIA

ELECTRONICS AND COMMUNICATION

Projects

Image segmentation using Deep Learning for ecommerce applications

The project aimed at using image segmentation for products on e-commerce websites. It involved creating dataset by scraping product images, using transfer learning on Tensorflow to fine-tune the pre-trained deep learning model to perform segmentation of products from images. The application was served using Flask and Report App Code Docker on AWS.

Predictive Modeling and Alternate Search Rankings for Airbnb Sep 2020

The project aimed at predicting the price of an Airbnb listing given a number of features. The project also involved coming up with alternate search rankings based on listing vibe, aesthetic quality of listings photos and using A/B testing for comparing different search rankings. The application was served using Docker on AWS. Predict-Report Predict App Search-Report Search App Code

Anomaly Detection in IoT 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. An interactive dashboard was developed and the alerts raised were then used by the maintenance team to trigger required corrective actions in advance, leading to predictive maintenance of the

Scene understanding using Deep Learning 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 PyTorch framework.

Recommender system using Matrix Factorization

This project aimed to predict the missing entries in the data matrix. An ensemble model was developed by combining Matrix factorisation model(ALS, CCD) with the nearest neighbor model and the results Paper Code were compared with the baseline methods.

Skills

Programming Python, Java, JavaScript, HTML, CSS

Data Analytics Numpy, Pandas, Spark, SQL, d3.js

Flask, Docker, AWS, A/B Testing

Machine Learning Scikit-learn, Tensorflow, Keras

Deep Learning for Vision, NLP

Predictive Modeling, Anomaly Detection Clustering, Recommender Systems

Work Experience

Jun 2018 - Present Renens Switzerland

eSMART Technologies DATA ANALYTICS ENGINEER

Developed a predictive maintenance system for Anomaly detection in IoT sensor data of apartments.

Feb 2017 - Jul 2017

Princeton USA

Bangalore India

Bangalore, India

NEC Labs America

MACHINE LEARNING RESEARCH INTERN

Worked on Object and Relationship detection algorithms for Scene understanding using Deep Learning in PyTorch.

Mar 2012 - May 2015

Signalchip Innovations

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

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 Link imaging.

Patent

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