

AJAY CHAWDA

Masters in Informatik - TU Kaiserslautern

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📍 Kaiserslautern, Germany



WORK EXPERIENCE

Research Assistant

Fraunhofer ITWM

📅 Aug 20 – cont.

📍 Kaiserslautern, DE

- Created unit test cases in R for existing functions to check functionality of the code in each module .
- Refactored existing code on principles of tidyverse style guide.
- Improved the AUC Precision vs Recall by 0.5 percent by minor changes to existing sequential neural network model on Tensorflow in R.
- Worked with flexdashboard to improve the readability of the existing dashboard to compare datasets.
- Improved the existing R shiny features to visualize the data in form of scatter and density plots by removing unnecessary data and applying filters.
- Documented features of the dataset and methods used for anomaly detection (Isolation forest, Random forest etc.)

Research Assistant

Sociovestix Labs

📅 Mar 20 – Mar 21

📍 Kaiserslautern, DE

- Filtered locations from EPTR dataset based on the requirements of the model. Combined different EPTR datasets using Pandas framework.
- Downloaded images from sentinel 2 through AWS pipeline for the selected locations using sentinel api.
- Created an Image annotation tool to label downloaded images using Flask. Labeled over 5000 images for classification purpose.
- Worked with OpenCV, and Jupyter Notebooks to download, augment and preprocess the data.
- The project was published in Climate Change Neurips 2020 conference. (Characterization of Industrial Smoke Plumes from Remote Sensing Data).

Associate Software Engineer

Accenture Solutions Pvt Ltd

📅 June 2017 – Feb 2019

📍 Bangalore, India

- Trained as an Oracle SOA BPEL Manager to work in middle ware.
- Managed Incidents generated due to events related to network alerts.
- Contributed to Improvements of Client Delivery Operations as a member of Innovation Crew.
- Worked on Remedy, Service Now, TrueSight, BPPM and Splunk as a resource for National Telecommunication Service provider.
- Worked in changing shifts every month as it was a 24 hour support project.
- Implemented Innovation Ideas in Python and participated in Accenture Innovation Challenge.
- Awarded Reward Points by Manager for excellent work ethic and team-player in the project.

PUBLICATION

Estimation of Fractal Dimension in Different color model (IJKDB-2018-15), Advances in Machine Learning and Data Mining, International Journal of Knowledge Discovery in Bioinformatics : Volume 8, Issue 1, Article 6.

CODING

Python
R
C
C++
LaTeX
Haskell
Matlab
PyStan



TOOLS

- Docker
- Git
- Numpy
- Pandas

DL FRAMEWORKS

- Pytorch
- TensorFlow

DATABASE

- MySQL
- MariaDB

LANGUAGES

- English
- Hindi
- Gujarati
- Odiya
- Deutsch - A1

PROJECTS

Analysis of Convolutional Neural Networks

TU Kaiserslautern

📅 Oct 2020 – June 2021

📍 Kaiserslautern, DE

- To calculate Intrinsic dimension of Neural Networks
- Observe behavior of ID over different object detection networks
- Observe behavior of ID over different datasets
- Github - https://github.com/ajaychawda58/ID_CNN

A Simple Image Annotation Tool

Personal Project

📅 June 2020 – Jul 2020

📍 Kaiserslautern, DE

- A simple tool using Flask to annotate images
- Currently a basic version. Implementation of bounding box features in progress.
- Github - https://github.com/ajaychawda58/Image_Annotation

Calculation of Fractal Dimension using Box Count Method

VSSUT, Burla

📅 August 2016 – May 2017

📍 Sambalpur, India

- Developed a new box count method algorithm to calculate the Fractal Dimension
- Improved the accuracy of Fractal Dimension using the new method
- Github - <https://github.com/ajaychawda58/Fractal-Dimension>

WORKSHOP

UPLINX Machine Learning School

DFKI

📅 October 2019

📍 Germany

A 3 day workshop consisting of Deep Neural Network Training, Reinforcement Learning using Tensorflow, Keras and Pytorch. Worked on CIFAR-10 and Boston Housing Dataset

HONORS

MEDHABRUTI - Selected as an awardee of the State Government Scholarship, receiving grant money of 10000 INR per year to pursue technical education.

EDUCATION

Masters in Informatik

TU Kaiserslautern

📅 April 2019 - cont.

Masters course with major as Intelligent Systems and minor as Software Engineering

Bachelor in Technology

VSSUT Burla

📅 August 2013 - Jun 2017

Bachelors in Computer Science consisting of 220 credits including a major project.

EXTRA- CURRICULARS

- Captained university cricket team in Bachelors final year.
- Enjoy reading and listening science fiction, non-fiction, autobiographies and sports books.
- Write a blog once in a while (<https://ajaychawda.wordpress.com/blogs/>)