Abrar Ahmed

https://github.com/abrarum | https:/linkedin.com/in/abraracs/ | https://xing.to/abrar_ahmed

abraracs@gmail.com | +4917642030519 | Berlin, Germany

EXPERIENCE

Master Thesis — Fraunhofer-Institut für Graphische Datenverarbeitung   Feb 2021 – Jul 2021
- Devised an opensource SSD line detection algorithm from scratch.
- The algorithm is capable of detecting lines with an accuracy of 93% on general datasets.

Research Assistant (Software Engineer)— Fraunhofer-Institut für Graphische Datenverarbeitung   Feb 2020 – Feb 2021
- Modelled feature visualization techniques to trace features learned in 14 bat species.
- Ported GAN algorithm in python 3.7.
- Front-end development of image calibration system in Vue.js.

Research Assistant (Data Engineer) — Max Planck Institute - Demogr   Jul 2020 – Mar 2021
- Handling of large-scale datasets specifically dealing with data quality.
- Data cleaning, management, and implementation of cross validation techniques.
- Statistical analysis and support in the preparation of visualizations and reports.

Werkstudent Software Engineer — Hamburg Port Consulting   Sep 2019 – Nov 2019
- Built and automated the pre-processing pipeline for the incoming raw dataset increasing the efficiency of pre-processing by decreasing time consumption by 98.33%.
- Devised ML models from scratch and improved the accuracy of container dwell time classification problem to 98%.

Freelance Software Engineer   Jul 2014 – Mar 2019
- Completed 200+ small and big projects by myself.
- Co-founded 3 micro-startups (Axisport Lab, Graphimator & Stitch-In)
- Clients: Cryptozilla.io *, Medb diagnostics **, Horizon Tech, Productivenous, Al Wahdat Travels, GiveAKidney, Midwestradar, Chotaay Delivery, UPenn, Flexicom, IFI, Individual entrepreneurs, and many more.

EDUCATION

Universität Rostock, Rostock, Germany   2019 – 2021
Masters in Computer Science (Information systems)

Bahria University   2014 - 2018
Bachelors in Computer Science

PROJECTS

Real-Time Hand Detection in a Therapeutic Research Scenario
- Collected 1000+ images, built and tweaked the deep learning model from scratch (technique – transfer learning), and validated + tested the model with 2 different validation methods (confusion matrix and cross-entropy).

Twitter Sentiment Analyzer
- Analyzed and categorized 10,000 tweets based on their sentiments of good, bad, and neutral gestures using Naive bayes.

A Novel Bezier Line Object Detection Library
- A novel SSD based line detection algorithm (Master thesis)

TECHNICAL SKILLS

Programming languages

Python, SQL / NO-SQL, Javascript

Cloud technologies

AWS, GCP, Azure SQL

Data engineering

ETL, Data pre-processing, Data wrangling, Power BI

Machine learning / Computer Vision Skills

Tensorflow / Keras, OpenCV, Numpy, Sci-kit learn, CNN, Classification, Regression, Clustering