

Abrar Ahmed

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EXPERIENCE

- Master Thesis (Machine learning) — Fraunhofer-Institut für Graphische Datenverarbeitung** Feb 2021 – Jul 2021
- Devised an [open-source 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
- Modeled 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

- A Novel Bezier Line Object Detection Library**
- A novel SSD based line detection algorithm (Master thesis)
- Real-Time Hand Detection in a Therapeutic Research Scenario**
- Developed an SSD-based hand tracking algorithm for therapists (classification and regression).
- Twitter Sentiment Analyzer**
- Analyzed and categorized 10,000 tweets based on their sentiments of good, bad, and neutral gestures using Naive Bayes.

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

Others:

Web / Mobile Front-End Frameworks

HTML5, CSS3, SCSS, Javascript ES5/6, React.js, Vue.js, Angular.js, React Native, Node.js, Android, Bootstrap, Material UI, Tailwind CSS, JSON, XML, SQL, jQuery, API Development, Postman, Responsive and Progressive Web Applications, Docker, Jira, Git, Linux, Axure RP, Balsamiq