full version

Abrar Ahmed

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

abraracs@gmail.com (preferred) | +4917642030519 | Berlin, Germany

EDUCATION

Universität Rostock, Rostock, Germany **2019 – 2021 (Expected)**
Masters in Computer Science
Thesis (ongoing): Bezier line object detection

EXPERIENCE

Research Assistant + Thesis @ Fraunhofer IGD **Feb 2020 – Feb 2021**
- Thesis: Bezier line object detection (detection of microscopic wood rings and transmission power-lines)
- Modeling feature visualization techniques to trace features learned in bat species recognition.
- Built the interface and APIs for the TensorRT inference engine from scratch using Vue.js.

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)
- Skill stack ranges from web dev, app dev, designer, animator, content writing, and SEO.

PROJECTS

Real-Time Hand Detection in a Therapeutic Research Scenario (Nov 2019 – Sep 2020, 4-person project, What I did)
- Implemented using Python, OpenCV, and TensorFlow (Keras).
- Supports even a low-edge camera like laptop webcam; accuracy achieved 95%
- Collected 1000+ images, built and tweaked 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 (Jan 2020 – March 2020, 1-person project)
- Implemented using Python and NLTK. Algorithm approach (Naive Bayes classifier implementing ordinal regression)
- Analyzed and categorized 10,000 tweets based on their sentiments of good, bad, and neutral gestures.

Tracking of Wild Polar Bears with AI (September 2020 – October 2020, 1-person project)
- Implemented using Azure services: virtual camera, Azure Functions, and Azure SQL.
- Trained a supervised machine learning model and created Power BI reports of polar bear detection.

TECHNICAL SKILLS

PROGRAMMING LANGUAGES
Python, Javascript, C++

ML/CV Skills
Deep learning NN, Computer vision, OpenCV, Tensorflow/Keras, Pytorch, Sci-kit learn, Numpy, CI, Google Cloud, AutoML, Azure ML, AWS CV