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# Faiz Ul Wahab

## Senior Deep Learning Engineer

Portfolio: [github.com/faizwhb](https://github.com/faizwhb)  
[linkedin.com/in/faizw](https://www.linkedin.com/in/faizw)

I am looking for an engineering position that provides an opportunity for product-focused research in Core Computer Vision like visual recommendation systems, tracking, video analysis and AR/VR.

### TECHNICAL EXPERIENCE

- Senior Deep Learning Engineer** **09/2021 — Present**  
*Vyking GmbH* *Berlin, Germany*
  - Advanced the Multi-task Framework with Real Time Object Detection and Segmentation(+7/+10 Points improvement)
  - Setup Configuration Systems for Quick Prototyping, Tracking and Versioning of Deep Learning Models and Datasets
  - Established Performance/Latency Metrics to Assess the Detection and Tracking Performance in virtual try-on applications
  - Prototype Human Body Shape and Pose Algorithm + System for Extension of our Virtual Try-On Solutions
- Deep Learning Engineer** **04/2017 — 08/2021**  
*Nyris GmbH* *Berlin, Germany*
  - Visual Search Evaluation: Developed Quality/Latency Metrics for Image Search Engine
  - Embeddings Search: Research and Prototype Metric Learning and Self Supervision Algorithms for improving visual search
  - Object Detection: Developed a real time object detection algorithm, boosted by saliency to find objects of interest in user submitted images.
  - Scene Text Recognition: Developed a prototype + production pipeline that identifies text in the image that can read product labels/descriptions, to improve search quality
- Computer Vision Software Engineer** **07/2013 — 06/2014**  
*TechArete* *Islamabad, Pakistan*
  - Developed a Video Copy Detection System that tracks advertisements on TV. This pipeline consisted of image-level feature extraction, followed by codebook creation for feature indexing and video-level voting schemes.
- Research Intern** **01/2021 - 07/2012**  
*Image Understanding and Pattern Recognition Group* *Kaiserslautern, Germany*
  - Develop denoising algorithms for character extraction and semantic contour detection in cadastral maps
  - Research on discriminative learning approaches for text detection

### EDUCATION

- Master in Intelligent Adaptive Systems** **2018**  
*University of Hamburg*
  - Major Coursework:** Computer Vision, Machine Learning, Deep Learning
  - Thesis:** *Interpretation of Neural Networks for Eye Fixation Prediction*
- Bachelor in Computer Science** **2013**  
*Lahore University of Management Sciences*
  - Major Coursework:** Digital Image Processing, Computer Vision, Computer Graphics

### PUBLICATIONS

- [1] Chennuru Vankadara, L., Haghir, S., **Wahab, F.**, Lohaus, M., Luxburg, U., *Insights into Ordinal Embedding Algorithms: A systematic evaluation.*, *arXiv:1912.01666v3*, **Submitted** in the Journal of Machine Learning Research (**JMLR 2021**).
- [2] \*Sultanpete Govindappa, K., \* **Wahab, F.**, \*Hesse, L., *Delf Attention Pooled Features*, in the International Computer Vision Summer School (**ICVSS 2019**).
- [3] Wieser, I., Toprak, S., Grenzing, A., Hinz, T., Audy, S., Karaoguz, E.C., Chandran, A., Remmels, M., El Shinawi, A., Josifovski, J., Chennuru Vankadara, L., **Wahab, F.**, Mollaalizadeh Bahnemiri, A., Sahu, D., Heinrich, S., Navarro-Guerrero, N., Strahl, E., Twiefel, J., Wermter, S.: *A Robotic Home Assistant with Memory Aid Functionality*, 39th German Conference on Artificial Intelligence (**KI 2016**).

### SKILLS

Tools and Languages	Git, Tensorflow, PyTorch, TFLite, CoreML
Research Area	Computer Vision, Real Time Neural Networks, Knowledge Distillation, Object Tracking
Communication	English, Urdu, Hindi

### AWARDS

- DAAD Scholarship:** Awarded DAAD Scholarship for attending TU Kaiserslautern as a Research Intern **2012**
- High Achievers Award:** Awarded a 75 % Scholarship for Attending High School **2007-09**