Eyad Alshami

Saarbrücken, Hanna-kirchner str. 4 – Germany, Saarland
(+49) 157-50376685 • ealshami@mpi-inf.mpg.de
eyad-al-shami.github.io

Education

PhD in Computer Vision — **Max Planck Institute for Informatics**
Supervised by Prof Bernt Schiele — *2024–Present*

M.Sc. in Data Science and Artificial Intelligence — **Saarland University**
GPA: 1.4 — *2021–2024*

B.Sc. in Information Technology Engineering — **Damascus University**
Majored in Machine Learning — *Class 2018*
GPA 75%

Masters Thesis

Title: *Retrospective Self-Guidance for Improved Feature Focus in Convolutional Networks*

Institution: Max-Planck-Institut für Informatik

Supervisor: Prof. Dr.-Ing. Margret Keuper, Research Leader of the Robust Visual Learning group at Max-Planck-Institut für Informatik

Examiner: Prof. Dr. Bernt Schiele , Max Planck Director at the Max Planck Institute for Informatics.

Experience

Research Assistant — **Saarbrücken, Germany**
CISPA Helmholtz Center for Information Security — *Sep 2023 - Present*
Developing an enhanced transferable method for jailbreaking large language models to improve response coherence and quality

Research Assistant — **Saarbrücken, Germany**
Max Planck Institute for Informatics — *Jul 2023 - Nov 2023*
Conducted research in out-of-distribution Semantic Segmentation.

Intern — **Saarbrücken, Germany**
ZF Group, Deep Learning Algorithms in Trajectory Prediction — *July 2022 - Aug 2022*
Conducted literature review, developed Python modules, and assisted in Deep Learning algorithm implementation.

Co-founder — **Syria**
Mujeeb LLC — *Jan 2016 – Sep 2021*
Built and maintained microservices, and engineered NLP pipeline for customer queries using ML techniques.

Artificial Intelligence Researcher — **United Kingdom (Remote)**
AkeedOnline — *Sep 2015 - May 2016*
Developed AI pipeline to detect fraudulent and manipulated images.

Projects and Implementations

Adversarial Teacher Student Representation Learning for Domain Generalization (Yang, 2022)
*Implementation, Domain Generalization, PyTorch, No **public** implementation existed before.*
Implemented from scratch. Uses teacher-student framework and adversarial training for domain-generalizable representations.

Domain Generalization with MixStyle (Zhou, 2021)
Implementation, Domain Generalization, PyTorch
Implemented from scratch. Makes CNNs domain-generalizable by mixing instance-level feature statistics across domains.

Self-Challenging Improves Cross-Domain Generalization (Huang, 2020)
Implementation, Domain Generalization, PyTorch

Implemented from scratch. Discards representations with higher gradients each epoch to improve cross-domain generalization.

FixMatch: Simplifying Semi-Supervised Learning (Sohn, 2020)

Implementation, Semi-Supervised Learning, PyTorch

Implemented from scratch. Uses Teacher-Student framework to distill knowledge and generate pseudo-labels for semi-supervised learning.

An Attention Free Transformer (Zhai, 2021)

Implementation, NLP, PyTorch

Implemented from scratch. An efficient Transformer without attention.

Attention Is All You Need (Vaswani, 2017)

Implementation, NLP, PyTorch

Implemented Transformer from scratch for Arabic-English translation using new parallel data.

Shepard Convolutional Neural Networks (Ren, 2015)

*Implementation, Image Inpainting, PyTorch-Lightning, No **public** implementation existed before.*

Implemented from scratch. Realizes trainable translation variant interpolation.

Computer skills

- Proficient in **Python**, with a solid understanding of object-oriented programming principles and best practices.
- Proficient in **PyTorch**, with experience in developing deep learning models for image classification, object detection, and natural language processing tasks.
- Proficient in **JavaScript** and web development, with a solid knowledge of web development tools and frameworks, and the ability to design and implement scalable and maintainable web applications.

Languages

Arabic: Native

English: C1 - Professional Proficiency