Saman Motamed

PhD Candidate in Computer Science
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Education

- **PhD Candidate in Computer Science**
  INSAIT, Sofia University
  Expected Graduation: 2028
  Advisor: Prof. Luc Van Gool

- **Master of Science in Computer Science**
  University of Toronto, Toronto, Canada
  Graduated with a 4/4 GPA, 2019 - 2021
  Thesis: "A Semi-Supervised Pipeline for Anomaly Detection in Medical Image"

- **Honours Bachelor of Science in Computer Science**
  University of Toronto, Toronto, Canada
  Graduated with High Distinction, 2014 - 2019

Work Experience

- **Visiting Researcher**
  ***Carnegie Mellon University**, Sep 2021 - April 2023*
  Advised by Prof. Fernando De la Torre
  Worked on projects that led to publications in NeurIPS 22, ICCV 23 and WACV 24, including personalized face inpainting models, a framework for making data generation using latent-based generative models more fair and a multi domain active learning method.

- **Visiting Researcher**
  ***KAUST Computer Vision grou**p, Sep 2022 - Dec 2022*
  Worked on text-guided editing of NeRF scenes.

- **Research Intern**
  ***Vector Institute** - May 2021 - Aug 2021*
  Worked on a project around NeurIPS 2021 Billion-Scale Approximate Nearest Neighbor Search

Publications

- **Lego: Learning to Disentangle and Invert Concepts Beyond Object Appearance in Text-to-Image Diffusion Models**
  S. Motamed**, D. Paudel, L. Van Gool - **Submitted to conference

- **D3GU: Multi-target Active Domain Adaptation via Enhancing Domain Alignment**
  *L. Zhang, L. Xu, **S. Motamed**, S. Chakraborty, F. De la Torre - **WACV, 2024***

- **Personalized Face Inpainting with Diffusion Models by Parallel Visual Attention**
  *J. Xu, **S. Motamed**, P. Vaddamanu, C. Häne, J.-C. Bazin, F. De la Torre - **WACV, 2024***

- **PATMAT: Person Aware Tuning of Mask-Aware Transformer for Face Inpainting**
  S. Motamed**, J. Xu, C. H. Wu, C. Häne, J.-C. Bazin, F. De la Torre - **ICCV, 2023

- **GVP: Unifying Distributional Control of Pre-trained Generative Models**
  *C.H. Wu, **S. Motamed**, S. Srivastava, F.D. De la Torre - **NeurIPS, 2022***

- **Inception-GAN for Semi-supervised Detection of Pneumonia in Chest X-rays**
  ***S. Motamed**, F. Khalvati - In Proceedings of the 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), 2021*

- **Multi-class Generative Adversarial Networks: Improving One-class Classification of Pneumonia Using Limited Labeled Data**
  ***S. Motamed**, F. Khalvati - In Proceedings of the 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), 2021*

- **RANDGAN: Randomized Generative Adversarial Network for Detection of COVID-19 in Chest X-ray**
  ***S. Motamed**, P. Rogalla, F. Khalvati - Scientific Reports, 2021*

- **Data Augmentation using Generative Adversarial Networks (GANs) for GAN-based Detection of Pneumonia and COVID-19 in Chest X-ray Images**
  ***S. Motamed**, P. Rogalla, F. Khalvati - Informatics in Medicine Unlocked, Volume 27, 2021*

Teaching

- **University of Toronto**

  CSC420: Introduction to Image Understanding - Winter 2019 , Fall 2020
  A final year undergraduate course designed to introduce students to fundamentals of Computer Vision before and after Deep Learning. Duties included designing assignments on feature matching and transfer learning, holding office hours and grading assignments and exams.

  ESC180 : An introductory course to programming concepts in Python - Fall 2020
  A course designed for first year Engineering Science students to get started with Object Oriented Programming in Python. Duties included designing midterm questions and holding weekly lab hours for students.

Services

- **Reviewer**
  NeurIPS, ICCV, CVPR, WACV, MICCAI

- **Student Volunteer**
  ICCV 2023, Paris