Pegah Salehi

AI Engineer • Computer Vision • PhD Graduate

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PROFILE

Over **7 years** of academic and project-based experience in **computer vision**, **generative AI**, and **medical image analysis**. Detail-oriented and motivated, with strong persistence and a practical approach to solving complex problems. Responsible, adaptable, and always eager to learn new tools and methods.

PROFESSIONAL EXPERIENCE

PhD Researcher – Artificial Intelligence   Oct 2021 – Apr 2025
Simula Metropolitan Center for Digital Engineering (SimulaMet)   Oslo, Norway

- Designed and developed AI-driven child avatars for training professionals in investigative interviews with maltreated children.
- Conducted interdisciplinary research across computer vision, dialogue modeling (NLP), speech processing (STT/TTS), and 3D avatar generation.
- Integrated technologies such as Unreal Engine, NVIDIA Audio2Face, Whisper, and GANs to build responsive, emotionally expressive virtual agents.
- Published 15 peer-reviewed articles in international venues (IEEE Access, ACM Workshops, Scientific Reports, etc.).
- Explored effects of realism, emotional expressiveness, and 2D/3D immersion on training efficacy and user engagement.

Professional Experience – Computer Vision Engineer (Freelance)   Nov 2024 – Feb 2025
Truviz Inc.   Remote, U.S.

- Collaborated with a U.S.-based startup to develop a human face avatar system aimed at enhancing user experience in notebook-based LLM applications.
- Focused on visual avatar modeling and facial animation for real-time lip-sync and naturalistic expression.
- Contributed to the integration of computer vision models with generative AI pipelines for interactive avatar generation.
- Delivered modular, production-ready code while adhering to strict IP and confidentiality terms under a freelance NDA agreement.

SKILLS

Programming & Tools	Python, PyTorch, TensorFlow, OpenCV, NumPy, Pandas
Machine Learning & AI	Computer Vision, Generative AI (GANs, Diffusion Models), Medical Image Analysis, Transfer Learning
Data & Visualization	Data Preprocessing, Feature Engineering, Matplotlib, Seaborn
DevOps & Deployment	Docker, Git, Reproducibility, Experiment Tracking
Soft Skills	Detail-Oriented, Highly Motivated, Responsible, Persistent, Quick Learner

EDUCATION

UiT The Arctic University of Norway   Tromsø, Norway
Ph.D. in Computer Science with specialization in AI generative   Oct 2021 - Apr 2025

Razi University   Kermanshah, Iran
M.Sc. in Machine Learning & Medical Image Analysis   Oct 2016 – Oct 2020

Malayer University   Hamadan, Iran
Bachelor of Science in IT Engineering   Feb 2012 – Feb 2016

PUBLICATIONS

The full list of my peer-reviewed publications can be found on my google scholar page.