

Bardiya Kariminia

radiya2254@gmail.com 0912 032 42 98 linkedin link <https://github.com/bardiya2254kariminia>

Overview and Research interests

Undergraduate Computer Engineering student at Shahid Beheshti University, with a strong passion for Computer Vision and deep interest in Generative Models (GANs, Diffusion Models), Manifold Learning (ArcFace, CosFace), and Vision-Language Models (CLIP, BLIP). Actively engaged in research and always eager to learn new concepts. Enthusiastic about VQA tasks and interdisciplinary collaboration, especially applying computer vision in medical imaging, such as MRI image restoration and related areas.

Education

Shahid Beheshti University, BS in Computer Engineering Sept 2022 – Ongoing

- Overall GPA: 4/4
- Major GPA: 4/4
- Ranked **first** among 2022 Entrance students.

Experience

Intern Researcher, Shahid Beheshti Computer Vision and Image Processing Lab under the supervision of Prof.Mohsen Ebrahimi Moghadam. Sept 2024 - July 2025

Developed a deep generative framework for face age Transformation using generative Models, **resulting in a Q1 paper submitted to Springer Discovery Artificial Intelligence.**

- Designed a system to transform input facial images across different age stages while preserving identity, ethnicity, and visual fidelity.
- Engineered features to extract and preserve race-specific attributes during generation.
- Curated a high-quality, racially balanced dataset to enhance resolution and fairness.
- Gained in-depth experience with generative models such as GANs, DDPM, DDIM, and related frameworks.

Remote intern researcher, Max Planck Informatics, AIDAM Group under the supervision of Prof.Vahid Babaee May 2025 - Ongoing

The research internship mainly focused on artificial intelligence-aided engineering designs using Diffusion models. Currently, **refining the manuscript for submission.**

- Developed an new training technique to add diversity via Determinantal Point process in the forwarding phase
- optimized pareto-front problems using the systems diversity injection ability.
- Gained in-depth experience with optimization techniques and diversity prepending.

Prime member of Shahid Beheshti University AI Club Sept 2023 - Ongoing

- Contributed as a teaching team member for the Machine Learning course and workshop, supporting students from Computer Science and Electrical Engineering in summer 2024 and summer 2025.

Teacher Assistant, Shahid Beheshti University Sept 2023 - Ongoing

Served as a teaching assistant by preparing exam questions, homework, and computer assignments, and organizing student workshops in the following courses:

- Advanced Programming (Fall 2023)
- Discrete Math, Computer Architecture, Data Structures, Finite State Languages and Automata (Spring 2024)
- Operating Systems (Fall 2025)
- Operating Systems, Linear Algebra (Spring 2025)
- Advanced Programming (Fall 2023)

Projects

Age Transformation without racial bias for Kinship verification

[Github Link](#)

- The main project for the Shahid Beheshti University computer vision internship focused on transforming face images across different ages in a bias-free manner using PSP-Encoder and StyleGAN-V2, along with new innovations.

Reimplementation of paper An Image is Worth 16x16 Words: Transformers for Image Recognition at Scale

[Github Link](#)

Reimplementation of paper Denoising Diffusion Probabilistic model

[Github Link](#)

Deep learning for image denoising and reducing distortions

[Github Link](#)

- Implemented a Framework for denoising an image or removing distortions in a non generative way using a Unet-based structure for the AI model.

Skills

- Python , Numpy, Pandas, Matplotlib, Scikit-learn, Seaborn
- Image processing Libraries: open-cv , Pillow
- AI frameworks: Jax , Transformers, DeepFace, PyTorch ,TensorFlow, TorchVision
- Latex