Seyed Hossein Taheri

AI Researcher and Python Instructor

Tehran, Iran | +98 910 672 5705 | s.h.taheri2001@gmail.com

Website | LinkedIn | GitHub | Google Scholar

PROFILE

MSc graduate in Soft Computing and Artificial Intelligence with an electrical engineering background. Research focuses on deep learning for medical image reconstruction, with additional publications in OCR, NLP, embedded systems, and energy management. Python instructor since 2022, with experience in object-oriented programming, web scraping, and freelance backend development.

EDUCATION

MSc in Soft Computing and Artificial Intelligence Sep 2023 - Sep 2026

Islamic Azad University, Science and Research Branch, Tehran, Iran

Department of Computer Science. Thesis defended in September 2026.

BE in Electrical and Electronics Engineering Aug 2019 - May 2023

Shahid Beheshti University, Tehran, Iran

RESEARCH EXPERIENCE

MRI Image Enhancement Using the MWACNN Method and Comparison with U-Net

Master's thesis | Supervisor: Dr. Mehdi Azhini | Advisor: Dr. Reza Kargar

- Implemented and compared U-Net, WACNN, MWACNN, and MWACNN with channel attention in PyTorch for MRI motion artifact removal using the KMAR-50K dataset.
- Evaluated reconstruction quality using PSNR, SSIM, MAE, MSE, NRMSE, and NCC, alongside parameter counts and inference time. Conducted a supplementary Wilcoxon signed-rank analysis.
- U-Net achieved the strongest overall results, with PSNR of 26.057 dB and SSIM of 0.7141. The channel-attention MWACNN approached U-Net on selected metrics with approximately one-third of its trainable parameters.

PUBLICATIONS

Taheri, S. H., Kosarirad, H., Adrover Gallego, I., & Taheri, N. (2025). A Deep Learning Based Optical Character Recognition Model for Old Turkic.
EAI Endorsed Transactions on AI and Robotics, 4. https://doi.org/10.4108/airo.8460

Taheri, S. H., Tayebati, P., & Parhamfar, M. (2025). Sustainable Strategies for Energy Management in Buildings and Electric Vehicle Charging.
Journal of Modern Technology, 2(1), 220-234. https://doi.org/10.71426/jmt.v2.i1.pp220-234

Kosarirad, H., & **Taheri, S. H.** (2024). Questionnaire Survey on the Use of NLP Tools in Software Testing.
18th International Conference on Innovation and Research in Engineering Sciences.

Taheri, S. H. (2024). Hardware Professionals' Perspectives on Embedded Systems Software Integration.
23rd International Conference on Information Technology, Computer and Telecommunication.

PROFESSIONAL EXPERIENCE

Python Instructor | Developeria, Tehran — Mar 2022 - Present

- Teach Python programming across organizations, covering programming fundamentals, object-oriented programming, web scraping, and machine learning fundamentals.

Freelance Backend Developer — 2024 - Present

- Work on backend programming tasks and practical software development projects.

Executive Staff | Kidacode Sharif, Tehran — 2024

- Support educational and programming activities and competition operations.

Python Instructor and Examiner | Lancer Sharif Innovation Center — Apr 2023 - Jun 2024

- Taught and assessed introductory and advanced Python courses, including object-oriented programming and web scraping.

TECHNICAL SKILLS

Programming and tools: Python, C++, PyTorch, NumPy, object-oriented programming, backend programming, web scraping, Selenium.

AI and research: Machine learning, deep learning, computer vision, natural language processing, OCR, medical image reconstruction, wavelet transforms, channel attention, model evaluation.

Engineering tools: MATLAB, OrCAD PSpice.

Teaching: Python instruction, learner assessment, and explaining programming concepts.

SELECTED CERTIFICATIONS AND PROFESSIONAL DEVELOPMENT

Advanced Python Instructor | Innlite Company | Apr 2025

Trainer Training Course | Lancer Sharif Innovation Center | Sep 2023

Specialized Programming and Robotics | Lancer Innovation Center | Sep 2023

Advanced Python Programming | Lancer Innovation Center | Mar 2023

Selenium in Python Workshop | Toplearn Center | 2023

Programming with Python | Tehran Institute of Technology | Mar 2020

Programming in C++ | Tehran Institute of Technology | Oct 2019

LANGUAGES AND TEST SCORES

Persian: Native

English: Professional working proficiency.

TOEFL iBT: 86/120 | Dec 2025

Duolingo English Test: 120/160 | Aug 2024.

GRE General Test: Quantitative 170/170 | Verbal 135/170 | Analytical Writing 2.5/6 | Nov 2024

AWARD

Outstanding Painting Award, 36th Tehran City Festival of Handicrafts and Visual Arts | Oct 2017.