Onat Dalmaz

Ph.D. Candidate in Electrical Engineering, Stanford University

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Education

Stanford University, Ph.D. in Electrical Engineering *Sep 2023 to present*

Advanced to candidacy in February 2025. Expected June 2027. Advisors Brian Hargreaves and Akshay Chaudhari.

Bilkent University, M.Sc. in Electrical and Electronics Engineering *2020–2023*

GPA 4.00/4.0. Advisor Tolga Çukur.

Bilkent University, B.Sc. in Electrical and Electronics Engineering *2016–2020*

GPA 3.77/4.0.

Research and Industry

AI Research Intern, DRW *Summer 2026*

Developed and evaluated machine learning models for equity-return prediction.

Research Assistant, Stanford University *Sep 2023 to present*

Developed randomized estimators for voxelwise noise quantification in deep and iterative MRI reconstructions, including Jacobian sketching and PICO.

Machine Learning Research Engineer, Hyperbee AI *2022*

Designed and trained transformer models for complex-valued signal regression.

Research Assistant, Bilkent University *2020–2023*

Developed transformer, diffusion, and federated learning methods for medical image synthesis and reconstruction.

Teaching

Teaching Assistant, Stanford University *Winter 2026*

EE 369B, Medical Imaging Systems II.

Teaching Assistant, Bilkent University *2020–2023*

CS 115, Introduction to Programming in Python. EEE 443/543, Neural Networks. EEE 202, Circuit Theory. EEE 211, Analog Electronics.

Selected Honors

- ISMRM Magna Cum Laude Merit Award (2025, 2022).
- Top trainee abstract recognition, ISMRM Workshop on Data Sampling and Image Reconstruction (2026).
- Distinguished Reviewer, IEEE Transactions on Medical Imaging (2024).
- Stanford Ph.D. Fellowship (2023 to present). Princeton and Yale Ph.D. Fellowship offers (2023).
- Best Paper Award, Bilkent Graduate Research Conference (2022).
- Bilkent Comprehensive Scholarship (2016–2023). TÜBİTAK Scientist Support Scholarship (M.Sc.).

Publications

* *Equal contribution.*

- **O. Dalmaz** et al. Fast Voxelwise SNR Estimation for Iterative MRI Reconstructions. Magnetic Resonance in Medicine, 2026 (published online).
- Ö. F. Atlı, B. Kabas, F. Arslan, A. C. Demirtas, M. Yurt, **O. Dalmaz**, and T. Çukur. I2I-Mamba: Multi-modal medical image synthesis via selective state space modeling. IEEE Transactions on Biomedical Engineering, 2026 (early access).
- M. U. Mirza, **O. Dalmaz**, et al. Learning Fourier-Constrained Diffusion Bridges for MRI Reconstruction. IEEE Transactions on Medical Imaging, 45(6), 3229–3245, 2026.
- F. Arslan, B. Kabas, **O. Dalmaz**, M. Özbey, and T. Çukur. Self-consistent recursive diffusion bridge for medical image translation. Medical Image Analysis, 106, 103747, 2025.
- **O. Dalmaz** et al. Efficient Noise Calculation in Deep Learning-based MRI Reconstructions. ICML, PMLR 267, 12280–12313, 2025.
- **O. Dalmaz** et al. One model to unite them all: Personalized federated learning of multi-contrast MRI synthesis. Medical Image Analysis, 94, 103121, 2024.
- I. Aytekin*, **O. Dalmaz***, et al. COVID-19 Detection From Respiratory Sounds With Hierarchical Spectrogram Transformers. IEEE Journal of Biomedical and Health Informatics, 28(3), 1273–1284, 2024.
- M. Özbey*, **O. Dalmaz***, et al. Unsupervised Medical Image Translation With Adversarial Diffusion Models. IEEE Transactions on Medical Imaging, 42(12), 3524–3539, 2023.
- K. Gönç, B. Sağlam, **O. Dalmaz**, et al. User Feedback-based Online Learning for Intent Classification. ACM ICMI, 613–621, 2023.
- H. A. Bedel, I. Sivgin, **O. Dalmaz**, S. U. H. Dar, and T. Çukur. BolT: Fused window transformers for fMRI time series analysis. Medical Image Analysis, 88, 102841, 2023.
- M. Yurt, **O. Dalmaz**, et al. Semi-Supervised Learning of MRI Synthesis Without Fully-Sampled Ground Truths. IEEE Transactions on Medical Imaging, 41(12), 3895–3906, 2022.
- **O. Dalmaz**, M. Yurt, and T. Çukur. ResViT: Residual Vision Transformers for Multimodal Medical Image Synthesis. IEEE Transactions on Medical Imaging, 41(10), 2598–2614, 2022.

Book chapter. O. Dalmaz and T. Çukur. Give me that other image: Machine learning for image-to-image translation. *Machine Learning in MRI: From Methods to Clinical Translation*, Elsevier, 439–462, 2026.

Patent Application

O. Dalmaz, B. Hargreaves, and A. Chaudhari. Efficient Theoretical Noise Variance Estimation for Deep Nonlinear Inverse Models. US provisional application 63/784,409, filed April 7, 2025.

Open-source Software

PICO Deep MRI noise estimation ResViT SynDiff pFLSynth HST

Professional Service

- Session co-moderator, ISMRM Foundation Models (2026) and Can We Trust AI as Our Tour Guide? (2025).
- Program committee, MICCAI DGM4MICCAI (2026), DeCaF (2024, 2025), and prior MICCAI and NeurIPS workshops.
- Reviewer, ICML (2025), AAAI FLUID (2025), and ICLR (2023). Journal reviewing includes Medical Image Analysis, IEEE TMI, IEEE TIP, IEEE TSP, IEEE TCI, IEEE JBHI, Neural Networks, and MELBA.
- Co-organizer, inaugural Stanford Turks in AI Forum (2025).