

# Asad Aali

Research Scientist, Stanford University




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## Education

- 2022 – 2024     **MS, Electrical & Computer Engineering**, UT Austin.  
Thesis: *Solving inverse problems with generative priors trained on corrupted data*  
Advisor: Jon Tamir
- 2021 – 2022     **MS, Information Technology**, UT Austin.  
Thesis: *Optimizing cloud usage with machine learning*  
Advisor: Alex Dimakis, Constantine Caramanis
- 2015 – 2019     **BS, Accounting & Finance**, LUMS.  
Minor: *Computer Science*

## Research

- 1    **A. Aali**, M. Arvinte, et al. Robust multi-coil MRI reconstruction via self-supervised denoising. In: *Magnetic Resonance in Medicine* (2025).
- 2    **A. Aali**, G. Daras, et al. Ambient diffusion posterior sampling: Solving inverse problems with diffusion models trained on corrupted data. In: *International Conference on Learning Representations* (2025).
- 3    F. Grolleau, E. Alsentzer, et al. MedFactEval and MedAgentBrief: A framework and workflow for generating and evaluating factual clinical summaries. In: *Pacific Symposium on Biocomputing* (2025).
- 4    E. Pérez-Guerrero, **A. Aali**, et al. Performance of large language model-generated spanish discharge material. In: *Journal of General Internal Medicine* (2025).
- 5    **A. Aali**, M. Arvinte, et al. GSURE denoising enables training of higher quality generative priors for accelerated MRI reconstruction. In: *International Society for Magnetic Resonance in Medicine* (2024).
- 6    **A. Aali**, D. Van Veen, et al. A dataset and benchmark for hospital course summarization with adapted large language models. In: *Journal of the American Medical Informatics Association* (2024).
- 7    **A. Aali**, D. Van Veen, et al. MIMIC-IV-BHC: Labeled clinical notes dataset for hospital course summarization. In: *PhysioNet* (2024).
- 8    D. Van Veen, C. Van Uden, et al. Adapted large language models can outperform medical experts in clinical text summarization. In: *Nature Medicine* (2024).
- 9    **A. Aali**, M. Arvinte, et al. Solving inverse problems with score-based generative priors learned from noisy data. In: *IEEE Asilomar Conference on Signals, Systems, and Computers* (2023).
- 10    S. Kumar, **A. Aali**, et al. Multi-contrast 3D fast spin-echo T2 shuffling reconstruction with score-based deep generative priors. In: *International Society for Magnetic Resonance in Medicine* (2023).

## Preprints

- 1    **A. Aali**, V. Bikia, et al. MedVAL: Toward expert-level medical text validation with language models. In: *arXiv:2507.03152*. 2025.
- 2    S. Bedi, H. Cui, et al. MedHELM: Holistic evaluation of large language models for medical tasks. In: *arXiv:2505.23802*. 2025.

- 3 M. A. Mohsin, A. Bilal, et al. Conditional prior-based non-stationary channel estimation using accelerated diffusion models. In: *arXiv:2509.15182*. 2025.
- 4 R. Sanda, A. Aali, et al. Patch-based diffusion for data-efficient, radiologist-preferred MRI reconstruction. In: *arXiv:2509.21531*. 2025.
- 5 A. Aali, A. Cardoza, et al. Splitwiser: Efficient LM inference with constrained resources. In: *arXiv:2505.03763*. 2024.
- 6 A. Aali, A. Johnston, et al. Automated detection of underdiagnosed medical conditions via opportunistic imaging. In: *arXiv:2409.11686*. 2024.

## Invited Talks





- 2025
- **MedVAL: Medical Text Validation with Language Models.**  
*Workshop on Machine Learning for Health*, Apple.  
*Trustworthy AI Research Lab*, Stanford University.  
*Radiological Sciences Lab*, Stanford University.  
*AI+Biomedicine Seminar*, Stanford University.  
*Daneshjou Lab*, Stanford University.
  - **Optimizing Clinical Workflows using Language Models.**  
*Guest Lecture*, Austin Community College.
  - **Advancing Healthcare with Machine Learning.**  
*Research Talk*, HOPPR.
- 2024
- **Detecting Underdiagnosed Conditions via Opportunistic Imaging.**  
*Radiology Retreat*, Stanford University.
  - **Splitwiser: Efficient LM Inference with Constrained Resources.**  
*Lecture*, UT Austin.
  - **Generative Priors for Accelerated MRI Reconstruction.**  
*Guest Lecture*, Austin Community College.
  - **Accelerated Multi-Coil MRI Reconstruction.**  
*ECE Outstanding Student Series*, UT Austin.
  - **GSURE Denoising for Accelerated Multi-Coil MRI Reconstruction.**  
*ISMRM*, Singapore.
- 2023
- **Hospital Course Summarization with Adapted Large Language Models.**  
*Research Showcase*, Amazon.
  - **MIMO Channel Estimation with Priors learned from Noisy Data.**  
*6G@UT Conference*, UT Austin.
  - **Solving Inverse Problems with Priors learned from Noisy Data.**  
*IEEE Asilomar Conference*, Pacific Grove.
  - **Generative Priors for Solving Inverse Problems from Noisy Data.**  
*IFML Workshop*, University of Washington.
- 2022
- **MIMO Channel Estimation using Score-Based Generative Models.**  
*6G@UT Conference*, UT Austin.

## Employment

- 2024 – ■ **Research Scientist**, Stanford University.
- 2022 – 2024 ■ **Research Assistant**, UT Austin.
- 2024 – 2024 ■ **Teaching Assistant**, UT Austin.



## Employment (continued)

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- 2023 – 2023        **Research Intern**, Amazon.
- 2022 – 2022        **Machine Learning Intern**, Dell Technologies.
- 2020 – 2021        **Data Analyst**, Plutus21 Capital.
- 2019 – 2020        **Data Analyst**, EZO.

## Awards and Achievements

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- 2025        **Best Paper Award Candidate**, NeurIPS GenAI4Health.
- 2024        **ECE Outstanding Student Fellowship**, UT Austin.