

# Asad Aali

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|-----------|--|----------------|
| EDUCATION | <b>The University of Texas at Austin</b> - Ph.D. in Electrical & Computer Engineering  | 2022 – Present |
|           | <u>Focus:</u> Computational imaging, inverse problems, deep learning                   |                |
|           | <u>Advisor:</u> Jon Tamir  |                |
|           | <u>GPA:</u> 4.0 / 4.0  |                |
|           | <b>The University of Texas at Austin</b> - M.S. in Electrical & Computer Engineering   | 2022 – 2024    |
|           | <u>Thesis:</u> Solving Inverse Problems with Priors learned from Noisy Data            |                |
|           | <u>GPA:</u> 3.8 / 4.0  |                |
|           | <b>The University of Texas at Austin</b> - M.S. in Information Technology              | 2021 – 2022    |
|           | <u>Thesis:</u> Reduction in Cloud Usage costs using Temporal Fusion Transformers (TFT) |                |
|           | <u>GPA:</u> 3.9 / 4.0  |                |
|           | <b>LUMS</b> - B.S.c (Hons) in Accounting & Finance                                     | 2015 – 2019    |
|           | <u>Minor:</u> Computer Science   |                |
|           | <u>GPA:</u> 3.6 / 4.0  |                |

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| EXPERIENCE | <b>Graduate Research Asst.</b> , UT Austin   Austin, TX                            | 2022 – Present |
|            | <b>Graduate Teaching Asst.</b> , UT Austin   Austin, TX                            | Spring 2024    |
|            | Teaching assistant for Linear Systems and Signals (ECE 313) covering 84 students   |                |
|            | <b>Research Scientist Intern</b> , Amazon Health (One Medical)   San Francisco, CA | Summer 2023    |
|            | Fine-tuned LLMs to improve synthesis of brief hospital courses from clinical notes |                |
|            | <b>Machine Learning Intern</b> , Dell Technologies   Austin, TX                    | Spring 2022    |
|            | Built a machine learning pipeline using TFTs to reduce cloud usage costs           |                |
|            | <b>Software Engineer</b> , Plutus21 Capital   Dallas, TX                           | 2020 – 2021    |
|            | Developed software algorithms and dashboards for tracking of portfolio funds       |                |
|            | <b>Solutions Consultant.</b> , EZOfficeInventory   Austin, TX                      | 2019 – 2020    |
|            | Led onboarding for enterprise clients and handled cloud-based deployments          |                |

## PREPRINTS (IN-REVIEW)

1. [Asad Aali\\*](#), Giannis Daras\*, Brett Levac, Sidharth Kumar, Alexandros G. Dimakis and Jonathan I. Tamir.  
["Ambient Diffusion Posterior Sampling: Solving Inverse Problems with Diffusion Models trained on Corrupted Data."](#)  
*In Review at International Conference on Machine Learning (ICML)*, 2024.
2. Asad Aali, Dave V. Veen, Yamin I. Arefeen, Jason Hom, Christian Bluethgen, Eduardo P. Reis, Sergios Gatidis et al.  
["A Benchmark of Domain-Adapted Large Language Models for Generating Brief Hospital Course Summaries."](#)  
*In Review at New England Journal of Medicine AI (NEJM AI)*, 2024

## PUBLICATIONS

1. [Asad Aali](#), Marius Arvinte, Sidharth Kumar, Yamin I. Arefeen and Jonathan I. Tamir.  
["GSURE Denoising enables training of higher quality generative priors for accelerated Multi-Coil MRI Reconstruction."](#)  
*International Society for Magnetic Resonance in Medicine (ISMRM)*, Oral, 2024.

2. Dave V. Veen, Cara V. Uden, Louis Blankemeier, Jean-Benoit Delbrouck, [Asad Aali](#), Christian Bluethgen, Anuj Pareek et al.  
["Adapted large language models can outperform medical experts in clinical text summarization."](#)  
*Nature Medicine*, 2024.
3. [Asad Aali](#), Marius Arvinte, Sidharth Kumar, and Jonathan I. Tamir.  
["Solving Inverse Problems with Score-Based Generative Priors learned from Noisy Data."](#)  
*IEEE Asilomar Conference on Signals, Systems, and Computers*, 2023.
4. Sidharth Kumar, [Asad Aali](#), and Jonathan I. Tamir.  
["T2 Shuffling Fast 3D Spin-Echo Reconstruction with Score-Based Generative Modeling."](#)  
*ISMRM Workshop on Data Sampling & Image Reconstruction*, 2023.
5. Sidharth Kumar, [Asad Aali](#), and Jonathan I. Tamir.  
["Multi-Contrast 3D Fast Spin-Echo T2 Shuffling Reconstruction with Score-Based Deep Generative Priors."](#)  
*International Society for Magnetic Resonance in Medicine (ISMRM), Oral*, 2023.

## INVITED TALKS & PRESENTATIONS

- ["GSURE Denoising enables training of higher quality generative priors for accelerated Multi-Coil MRI Reconstruction."](#)  
*ECE Outstanding Student Lecture Series*  
 The University of Texas at Austin, Austin, TX, Mar 2024.
- ["MIMO Channel Estimation with Score-Based Generative Priors learned from Noisy Data."](#)  
*6G@UT Student Research Showcase*  
 The University of Texas at Austin, Austin, TX, Dec 2023.
- ["Domain-Adapted Large Language Models for Brief Hospital Course Summarization."](#)  
*Intern Research Showcase*  
 One Medical, Virtual, Dec 2023.
- ["Solving Inverse Problems with Score-Based Generative Priors learned from Noisy Data."](#)  
*Poster Presentation*  
 IEEE Asilomar Conference, Pacific Grove, CA, Oct 2023.
- ["Generative Priors for Solving Inverse Problems from Noisy Data."](#)  
*IFML Workshop*  
 University of Washington, Seattle, WA, Apr 2023.
- ["MIMO Channel Estimation using Score-Based Generative Models."](#)  
*6G@UT Student Research Showcase*  
 The University of Texas at Austin, Austin, TX, Nov 2022.