

Asad Aali

asad-aali.github.io

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EDUCATION

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

EXPERIENCE

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