Asad Aali

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EDUCATION	The University of Texas at Austin - MS in Electrical & Computer Engineering Thesis : Solving Inverse Problems with Priors trained on Corrupted Data GPA : 3.8 / 4.0	2022 – 2024
	The University of Texas at Austin - MS in Information Technology <u>Thesis</u> : Reduction in Cloud Usage costs using Temporal Fusion Transformers (TFT) <u>GPA</u> : 3.9/4.0	2021 – 2022
	LUMS - BSc (Hons) in Accounting & Finance <u>Minor</u> : Computer Science <u>GPA</u> : 3.6/4.0	2015 – 2019
EXPERIENCE	Research Data Analyst, Stanford University Stanford, CA Research focus: Computer vision, medical imaging, biomedical informatics	2024 – Curr
	Teaching Assistant , UT Austin Austin, TX Teaching assistant for Linear Systems and Signals (ECE 313) covering 84 students	2024 – 2024
	Research Assistant, UT Austin Austin, TX Research focus: Computational imaging, inverse problems, deep learning	2022 – 2023
	Research Intern, Amazon San Francisco, CA Fine-tuned LLMs to improve synthesis of brief hospital courses from clinical notes	2023 – 2023
	Machine Learning Intern, Dell Technologies Austin, TX Built a machine learning pipeline using TFTs to reduce cloud usage costs	2022 – 2022
	Data Analyst , Plutus21 Capital Dallas, TX Developed software algorithms and dashboards for tracking of portfolio funds	2020 – 2021
	Solutions Consultant , EZOfficeInventory Austin, TX Led onboarding for enterprise clients and handled cloud-based deployments	2019 – 2020

PUBLICATIONS & PREPRINTS

- Asad Aali, Adney Cardoza, and Melissa Capo.
 Splitwiser: Efficient LLM Inference with Constrained Resources.
 Preprint, 2024.
- Asad Aali, Giannis Daras, Brett Levac, Sidharth Kumar, Alexandros G. Dimakis et al.
 Ambient Diffusion Posterior Sampling: Solving Inverse Problems with Diffusion Models trained on Corrupted Data.

Preprint, 2024.

3. <u>Asad Aali</u>, Dave V. Veen, Yamin I. Arefeen, Jason Hom, Christian Bluethgen, et al. <u>A Benchmark of Domain-Adapted Large Language Models for Generating Brief Hospital Course Summaries.</u>

Preprint, 2024.

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.

- Dave V. Veen, Cara V. Uden, Louis Blankemeier, Jean-Benoit Delbrouck, <u>Asad Aali</u>, et al. <u>Adapted large language models can outperform medical experts in clinical text summarization</u>. *Nature Medicine*, 2024.
- 6. <u>Asad Aali</u>, Marius Arvinte, Sidharth Kumar, and Jonathan I. Tamir. <u>Solving Inverse Problems with Score-Based Generative Priors learned from Noisy Data.</u> *IEEE Asilomar Conference on Signals, Systems, and Computers*, 2023.
- Sidharth Kumar, <u>Asad Aali</u>, and Jonathan I. Tamir.
 <u>T2 Shuffling Fast 3D Spin-Echo Reconstruction with Score-Based Generative Modeling</u>.
 ISMRM Workshop on Data Sampling & Image Reconstruction, 2023.
- 8. 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

• Generative Priors for Accelerated MRI Reconstruction.

Guest Lecture – Machine Learning II (COSC-4380)

Austin Community College (ACC), Austin, TX, Apr 2024.

• 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.

<u>Domain-Adapted Large Language Models for Brief Hospital Course Summarization.</u>

Intern Research Showcase

Amazon, 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.