Asad Aali

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Education

2022 – 2024 **MS, Electrical & Computer Engineering**, UT Austin.
2021 – 2022 **MS, Information Technology**, UT Austin.
2015 – 2019 **BS, Accounting & Finance**, LUMS.

Employment

2024 – **Research Scientist,** Stanford University.
Focus: Machine learning, healthcare
2022 – 2024 **Research Assistant,** UT Austin.
2024 – 2024 **Teaching Assistant,** UT Austin.
2023 – 2023 **Research Intern,** Amazon.
2022 – 2022 **Machine Learning Intern,** Dell Technologies.
2020 – 2021 **Data Analyst,** Plutus21 Capital.
2019 – 2020 **Data Analyst,** EZO.

Research

Journal Articles

1. **A. Aali**, M. Arvinte, S. Kumar, et al. Robust multi-coil MRI reconstruction via self-supervised denoising. In: *arXiv:2411.12919* (2024).
2. **A. Aali**, D. Van Veen, Y. I. Arefeen, et al. A dataset and benchmark for hospital course summarization with adapted large language models. In: *Journal of the American Medical Informatics Association* (2024).
3. D. Van Veen, C. Van Uden, L. Blankemeier, et al. Adapted large language models can outperform medical experts in clinical text summarization. In: *Nature Medicine* (2024).

Conference Proceedings

1. **A. Aali**, G. Daras, B. Levac, et al. Ambient diffusion posterior sampling: Solving inverse problems with diffusion models trained on corrupted data. In: *International Conference on Learning Representations (ICLR)*. 2025.
2. **A. Aali**, M. Arvinte, S. Kumar, et al. GSURE denoising enables training of higher quality generative priors for accelerated multi-coil MRI reconstruction. In: *International Society for Magnetic Resonance in Medicine (ISMRM)*. 2024.
3. **A. Aali**, A. Johnston, L. Blankemeier, et al. Detecting underdiagnosed medical conditions with opportunistic imaging. In: *arXiv:2409.11686*. 2024.
4. **A. Aali**, M. Arvinte, S. Kumar, et al. Solving inverse problems with score-based generative priors learned from noisy data. In: *IEEE Asilomar Conference on Signals, Systems, and Computers*. 2023.

5. S. Kumar, **A. Aali**, and J. I. Tamir. Multi-contrast 3D fast spin-echo T2 shuffling reconstruction with score-based deep generative priors. In: *International Society for Magnetic Resonance in Medicine (ISMRM)*. 2023.

Datasets

1. **A. Aali**, D. Van Veen, Y. I. Arefeen, et al. MIMIC-IV-BHC: Labeled clinical notes dataset for hospital course summarization. *PhysioNet*. 2024.

Talks

2025
- **Optimizing Clinical Workflows using Language Models.**
  Guest Lecture, Austin Community College.
- **Advancing Healthcare with Machine Learning.**
  Research Talk, HOPPR.

2024
- **Detecting Underdiagnosed Medical Conditions with 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.

Awards and Achievements

2024
- **ECE Outstanding Student Award**, UT Austin.