# Asad Aali

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### Employment



2023 – 📕 Founder & CEO, Algorithmia.

### Education

2022 – 2024	<b>MS, Electrical &amp; Computer Engineering</b> , The University of Texas at Austin. Thesis: Solving Inverse Problems with Generative Priors Trained on Corrupted Data.
2021 – 2022	<b>MS, Information Technology</b> , The University of Texas at Austin. Thesis: Optimizing cloud usage costs using Deep Learning-driven Transformer models.
2015 - 2019	<b>BS (Honors), Accounting &amp; Finance</b> , Lahore University of Management Sciences. Minor: <i>Computer Science</i> .

### **Research Publications**

#### Preprints

- **A. Aali**, G. Daras, B. Levac, S. Kumar, A. G. Dimakis, and J. I. Tamir, Ambient diffusion posterior sampling: Solving inverse problems with diffusion models trained on corrupted data, 2024.
- **A. Aali**, D. Van Veen, Y. I. Arefeen, J. Hom, C. Bluethgen, E. P. Reis, *et al.*, A dataset and benchmark for hospital course summarization with adapted large language models, 2024.

#### **Journal Articles**

D. Van Veen, C. Van Uden, L. Blankemeier, J.-B. Delbrouck, **A. Aali**, C. Bluethgen, *et al.*, Adapted large language models can outperform medical experts in clinical text summarization, *Nature medicine*, vol. 30, no. 4, pp. 1134–1142, 2024.

#### **Conference Proceedings**

- **A. Aali**, M. Arvinte, S. Kumar, Y. I. Arefeen, and J. I. Tamir, Gsure denoising enables training of higher quality generative priors for accelerated multi-coil mri reconstruction, in *International Society for Magnetic Resonance in Medicine*, 2024.
- **A. Aali**, M. Arvinte, S. Kumar, and J. I. Tamir, Solving inverse problems with score-based generative priors learned from noisy data, in *57th Asilomar Conference on Signals, Systems, and Computers*, IEEE, 2023.
  - 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*, 2023.

#### Datasets

**A. Aali**, D. Van Veen, Y. I. Arefeen, J. Hom, C. Bluethgen, E. P. Reis, *et al.*, Mimic-iv-ext-bhc: Labeled clinical notes dataset for hospital course summarization, *PhysioNet*, 2024.



## Talks

2024	<b>Splitwiser: Efficient LLM Inference with Constrained Resources.</b> <i>Lecture (ECE 382V)</i> , The University of Texas at Austin.
	Generative Priors for Accelerated MRI Reconstruction. Guest Lecture (COSC 4380), Austin Community College (ACC).
	Accelerated Multi-Coil MRI Reconstruction. ECE Outstanding Student Series, The University of Texas at Austin.
	<b>GSURE Denoising for Accelerated Multi-Coil MRI Reconstruction.</b> International Society for Magnetic Resonance in Medicine, Singapore.
2023	Hospital Course Summarization with Adapted Large Language Models. Intern Research Showcase, Amazon.
	<b>MIMO Channel Estimation with Priors learned from Noisy Data.</b> 6G@UT Conference, The University of Texas at Austin.
I	<b>Solving Inverse Problems with Priors learned from Noisy Data.</b> <i>IEEE Asilomar Conference,</i> Pacific Grove.
	<b>Generative Priors for Solving Inverse Problems from Noisy Data.</b> <i>IFML Workshop,</i> University of Washington, Seattle.
2022	<b>MIMO Channel Estimation using Score-Based Generative Models.</b> 6G@UT Conference, The University of Texas at Austin.

## Awards and Achievements

2024 **ECE Outstanding Student Award**, The University of Texas at Austin.

# Past Employment

2022 – 2024	Research Assistant, The University of Texas at Austin.
2023 - 2024	Teaching Assistant, The University of Texas at Austin.
2023 - 2023	Research Intern, Amazon.
2022 - 2022	Machine Learning Intern, Dell Technologies.
2020 - 2021	Data Analyst, Plutus21 Capital.
2019 – 2020	Solutions Consultant, EZOfficeInventory.