

Stanford



Ehsan Adeli

Clinical Assistant Professor, Psychiatry and Behavioral Sciences

Bio

BIO

My research lies at the intersection of machine learning, computer vision, healthcare, and computational neuroscience. I work on automatic analysis of human activities and behaviors from videos and connecting how humans perform actions to the brain by analyzing magnetic resonance images (MRIs). I explore explainable machine learning algorithms for understanding the underlying factors of neurodegenerative and neuropsychiatric diseases on the brain as well as their ramifications for everyday life.

ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Psychiatry and Behavioral Sciences
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)
- Member, Wu Tsai Human Performance Alliance
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Associate Editor, IEEE Journal of Biomedical and Health Informatics, (2020- present)
- Associate Editor, Journal of Ambient Intelligence and Smart Environments, (2019- present)

HONORS AND AWARDS

- Senior Member, IEEE (2021-Now)
- REC Fellow, Stanford University Alzheimer's Disease Research Center (ADRC) (2020-2022)
- Innovator Award 2021, Stanford University School of Medicine Department of Psychiatry & Behavioral Sciences (2020-2021)
- Young Investigator Award, Medical Image Computing and Computer Assisted Interventions (MICCAI) (2018)
- NIH F32 Fellowship Award, NIAAA (2018-2019)

PROFESSIONAL EDUCATION

- Postdoctoral Research Associate, University of North Carolina at Chapel Hill , Machine Learning and Medical Imaging (2017)
- Graduate Research Scholar, Carnegie Mellon University , Computer Vision (2012)

LINKS

- My homepage: <http://stanford.edu/~eadeli/>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research lies in the intersection of machine learning, computer vision, neuroimaging, and computational neuroscience. Particularly, my research focuses on the investigation of different computational and statistical learning-based methods in processing both natural and biomedical images to extract semantics from the underlying visual content. Machine learning, statistics, signal and image processing, neuroscience, computer vision, and neuroimaging have conventionally evolved independently to tackle problems from different perspectives. Occasionally, these concepts neglected each other, while they can offer complementary viewpoints. In recent years, these fields have begun to intertwine, and it is increasingly becoming clear that we need to make use of multidisciplinary research to better process large-scale visual data. I consider my research interests and direction as located at the intersection of all the aforementioned fields.

Teaching

COURSES

2022-23

- AI-Assisted Care: MED 277 (Aut)
- Current Topics in Machine Learning for Neuroimaging: PSYC 121 (Aut)
- Current Topics in Machine Learning for Neuroimaging: PSYC 221 (Aut)

2021-22

- AI-Assisted Care: CS 337, MED 277 (Aut)

2020-21

- Artificial Intelligence in Medicine and Healthcare Ventures: MED 18SI (Spr)

2019-20

- AI-Assisted Care: CS 337, MED 277 (Aut)

Publications

PUBLICATIONS

- **Disentangling Normal Aging From Severity of Disease via Weak Supervision on Longitudinal MRI** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Ouyang, J., Zhao, Q., Adeli, E., Zaharchuk, G., Pohl, K. M.
2022; 41 (10): 2558-2569
- **Semantic instance segmentation with discriminative deep supervision for medical images.** *Medical image analysis*
Zhou, S., Nie, D., Adeli, E., Wei, Q., Ren, X., Liu, X., Zhu, E., Yin, J., Wang, Q., Shen, D.
2022; 82: 102626
- **Multiple Instance Neuroimage Transformer.** *PRedictive Intelligence in MEDicine. PRIME (Workshop)*
Singla, A., Zhao, Q., Do, D. K., Zhou, Y., Pohl, K. M., Adeli, E.
2022; 13564: 36-48
- **Bridging the Gap between Deep Learning and Hypothesis-Driven Analysis via Permutation Testing.** *PRedictive Intelligence in MEDicine. PRIME (Workshop)*
Paschali, M., Zhao, Q., Adeli, E., Pohl, K. M.
2022; 13564: 13-23
- **GaitForeMer: Self-Supervised Pre-Training of Transformers via Human Motion Forecasting for Few-Shot Gait Impairment Severity Estimation.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Endo, M., Poston, K. L., Sullivan, E. V., Fei-Fei, L., Pohl, K. M., Adeli, E.
2022; 13438: 130-139

- **A Penalty Approach for Normalizing Feature Distributions to Build Confounder-Free Models.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Vento, A., Zhao, Q., Paul, R., Pohl, K., Adeli, E.
2022; 13433: 387-397
- **Self-supervised learning of neighborhood embedding for longitudinal MRI.** *Medical image analysis*
Ouyang, J., Zhao, Q., Adeli, E., Zaharchuk, G., Pohl, K. M.
2022; 82: 102571
- **A Novel Explainability Approach for Technology-Driven Translational Research on Brain Aging.** *Journal of Alzheimer's disease : JAD*
Turnbull, A., Kaplan, R., Adeli, E., Lin, F. V.
2022
- **Detecting negative valence symptoms in adolescents based on longitudinal self-reports and behavioral assessments.** *Journal of affective disorders*
Paschali, M., Kiss, O., Zhao, Q., Adeli, E., Podhajsky, S., Muller-Oehring, E. M., Gotlib, I. H., Pohl, K. M., Baker, F. C.
2022
- **Generative adversarial U-Net for domain-free few-shot medical diagnosis** *PATTERN RECOGNITION LETTERS*
Chen, X., Li, Y., Yao, L., Adeli, E., Zhang, Y., Wang, X.
2022; 157: 112-118
- **GaitForeMer: Self-supervised Pre-training of Transformers via Human Motion Forecasting for Few-Shot Gait Impairment Severity Estimation**
Endo, M., Poston, K. L., Sullivan, E. V., Fei-Fei, L., Pohl, K. M., Adeli, E., Wang, L., Dou, Q., Fletcher, P. T., Speidel, S., Li, S.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 130-139
- **TransDeepLab: Convolution-Free Transformer-Based DeepLab v3+for Medical Image Segmentation**
Azad, R., Heidari, M., Shariatnia, M., Aghdam, E., Karimijafarbigloo, S., Adeli, E., Merhof, D., Rekik, Adeli, E., Park, S. H., Cintas, C.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 91-102
- **Intervertebral Disc Labeling with Learning Shape Information, a Look once Approach**
Azad, R., Heidari, M., Cohen-Adad, J., Adeli, E., Merhof, D., Rekik, Adeli, E., Park, S. H., Cintas, C.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 49-59
- **Joint Graph Convolution for Analyzing Brain Structural and Functional Connectome**
Li, Y., Wei, Q., Adeli, E., Pohl, K. M., Zhao, Q., Wang, L., Dou, Q., Fletcher, P. T., Speidel, S., Li, S.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 231-240
- **Bridging the Gap Between Deep Learning and Hypothesis-Driven Analysis via Permutation Testing**
Paschali, M., Zhao, Q., Adeli, E., Pohl, K. M., Rekik, Adeli, E., Park, S. H., Cintas, C.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 13-23
- **Multiple Instance Neuroimage Transformer**
Singla, A., Zhao, Q., Do, D. K., Zhou, Y., Pohl, K. M., Adeli, E., Rekik, Adeli, E., Park, S. H., Cintas, C.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 36-48
- **A Penalty Approach for Normalizing Feature Distributions to Build Confounder-Free Models**
Vento, A., Zhao, Q., Paul, R., Pohl, K. M., Adeli, E., Wang, L., Dou, Q., Fletcher, P. T., Speidel, S., Li, S.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 387-397
- **Switching Structured Prediction for Simple and Complex Human Activity Recognition** *IEEE TRANSACTIONS ON CYBERNETICS*
Arzani, M. M., Fathy, M., Azirani, A. A., Adeli, E.
2021; 51 (12): 5859-5870
- **Multi-label, multi-domain learning identifies compounding effects of HIV and cognitive impairment.** *Medical image analysis*
Zhang, J., Zhao, Q., Adeli, E., Pfefferbaum, A., Sullivan, E. V., Paul, R., Valcour, V., Pohl, K. M.
2021; 75: 102246
- **Longitudinal Correlation Analysis for Decoding Multi-modal Brain Development.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Zhao, Q., Adeli, E., Pohl, K. M.

2021; 12907: 400-409

- **Self-Supervised Longitudinal Neighbourhood Embedding.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Ouyang, J., Zhao, Q., Adeli, E., Sullivan, E. V., Pfefferbaum, A., Zaharchuk, G., Pohl, K. M.
2021; 12902: 80-89
- **Representation Disentanglement for Multi-modal Brain MRI Analysis.** *Information processing in medical imaging : proceedings of the ... conference*
Ouyang, J., Adeli, E., Pohl, K. M., Zhao, Q., Zaharchuk, G.
2021; 12729: 321-333
- **Longitudinal Pooling & Consistency Regularization to Model Disease Progression From MRIs.** *IEEE journal of biomedical and health informatics*
Ouyang, J., Zhao, Q., Sullivan, E. V., Pfefferbaum, A., Tapert, S. F., Adeli, E., Pohl, K. M.
2021; 25 (6): 2082-2092
- **Multi-view representation learning and understanding** *MULTIMEDIA TOOLS AND APPLICATIONS*
Zhou, T., Zhang, Y., Thung, K., Adeli, E., Rekik, I., Zhao, Q., Zhang, C.
2021; 80 (15): 22865
- **Going Beyond Saliency Maps: Training Deep Models to Interpret Deep Models.** *Information processing in medical imaging : proceedings of the ... conference*
Liu, Z., Adeli, E., Pohl, K. M., Zhao, Q.
2021; 12729: 71-82
- **Longitudinal self-supervised learning.** *Medical image analysis*
Zhao, Q., Liu, Z., Adeli, E., Pohl, K. M.
2021; 71: 102051
- **Cascaded MultiTask 3-D Fully Convolutional Networks for Pancreas Segmentation** *IEEE TRANSACTIONS ON CYBERNETICS*
Xue, J., He, K., Nie, D., Adeli, E., Shi, Z., Lee, S., Zheng, Y., Liu, X., Li, D., Shen, D.
2021; 51 (4): 2153-2165
- **Deep End-to-End One-Class Classifier** *IEEE TRANSACTIONS ON NEURAL NETWORKS AND LEARNING SYSTEMS*
Sabokrou, M., Fathy, M., Zhao, G., Adeli, E.
2021; 32 (2): 675-84
- **MetricUNet: Synergistic image- and voxel-level learning for precise prostate segmentation via online sampling.** *Medical image analysis*
He, K. n., Lian, C. n., Adeli, E. n., Huo, J. n., Gao, Y. n., Zhang, B. n., Zhang, J. n., Shen, D. n.
2021; 71: 102039
- **Longitudinal Correlation Analysis for Decoding Multi-modal Brain Development**
Zhao, Q., Adeli, E., Pohl, K. M., DeBruijne, M., Cattin, P. C., Cotin, S., Padoy, N., Speidel, S., Zheng, Y., Essert, C.
SPRINGER INTERNATIONAL PUBLISHING AG.2021: 400-409
- **Metadata Normalization.** *Proceedings. IEEE Computer Society Conference on Computer Vision and Pattern Recognition*
Lu, M., Zhao, Q., Zhang, J., Pohl, K. M., Fei-Fei, L., Niebles, J. C., Adeli, E.
2021; 2021: 10912-10922
- **Self-supervised Longitudinal Neighbourhood Embedding**
Ouyang, J., Zhao, Q., Adeli, E., Sullivan, E., Pfefferbaum, A., Zaharchuk, G., Pohl, K. M., DeBruijne, M., Cattin, P. C., Cotin, S., Padoy, N., Speidel, S., Zheng, et al
SPRINGER INTERNATIONAL PUBLISHING AG.2021: 80-89
- **CoCon: Cooperative-Contrastive Learning**
Rai, N., Adeli, E., Lee, K., Gaidon, A., Niebles, J., IEEE Comp Soc
IEEE COMPUTER SOC.2021: 3379-3388
- **TRiPOD: Human Trajectory and Pose Dynamics Forecasting in the Wild**
Adeli, V., Ehsanpour, M., Reid, I., Niebles, J., Savarese, S., Adeli, E., Rezatofighi, H., IEEE
IEEE.2021: 13370-13380
- **Home Action Genome: Cooperative Compositional Action Understanding**

Rai, N., Chen, H., Ji, J., Desai, R., Kozuka, K., Ishizaka, S., Adeli, E., Niebles, J., IEEE COMP SOC
IEEE COMPUTER SOC.2021: 11179-11188

- **Representation Learning with Statistical Independence to Mitigate Bias.** *IEEE Winter Conference on Applications of Computer Vision. IEEE Winter Conference on Applications of Computer Vision*
Adeli, E., Zhao, Q., Pfefferbaum, A., Sullivan, E. V., Fei-Fei, L., Niebles, J. C., Pohl, K. M.
2021; 2021: 2512-2522
- **Is Frailty Associated with Adverse Outcomes After Orthopaedic Surgery?: A Systematic Review and Assessment of Definitions.** *JBJS reviews*
Lemos, J. L., Welch, J. M., Xiao, M., Shapiro, L. M., Adeli, E., Kamal, R. N.
1800; 9 (12)
- **3D CNNs with Adaptive Temporal Feature Resolutions**
Fayyaz, M., Bahrami, E., Diba, A., Noroozi, M., Adeli, E., Van Gool, L., Gall, J., IEEE COMP SOC
IEEE COMPUTER SOC.2021: 4729-4738
- **Scalable Differential Privacy with Sparse Network Finetuning**
Luo, Z., Wu, D. J., Adeli, E., Li Fei-Fei, IEEE COMP SOC
IEEE COMPUTER SOC.2021: 5057-5066
- **Quantifying Parkinson's disease motor severity under uncertainty using MDS-UPDRS videos.** *Medical image analysis*
Lu, M., Zhao, Q., Poston, K. L., Sullivan, E. V., Pfefferbaum, A., Shahid, M., Katz, M., Kouhsari, L. M., Schulman, K., Milstein, A., Niebles, J. C., Henderson, V. W., Fei-Fei, et al
2021; 73: 102179
- **Association of Heavy Drinking With Deviant Fiber Tract Development in Frontal Brain Systems in Adolescents.** *JAMA psychiatry*
Zhao, Q., Sullivan, E. V., Honnorat, N., Adeli, E., Podhajsky, S., De Bellis, M. D., Voyvodic, J., Nooner, K. B., Baker, F. C., Colrain, I. M., Tapert, S. F., Brown, S. A., Thompson, et al
2020
- **Ethical issues in using ambient intelligence in health-care settings.** *The Lancet. Digital health*
Martinez-Martin, N., Luo, Z., Kaushal, A., Adeli, E., Haque, A., Kelly, S. S., Wieten, S., Cho, M. K., Magnus, D., Fei-Fei, L., Schulman, K., Milstein, A.
2020
- **Multiview Feature Learning With Multiatlas-Based Functional Connectivity Networks for MCI Diagnosis.** *IEEE transactions on cybernetics*
Zhang, Y., Zhang, H., Adeli, E., Chen, X., Liu, M., Shen, D.
2020; PP
- **Guest Editorial: AI-Powered 3D Vision** *IET IMAGE PROCESSING*
Yang, Y., Yang, J., Adeli, E.
2020; 14 (12): 2627–29
- **Depth map artefacts reduction: a review** *IET IMAGE PROCESSING*
Ibrahim, M., Liu, Q., Khan, R., Yang, J., Adeli, E., Yang, Y.
2020; 14 (12): 2630–44
- **Spatio-Temporal Graph Convolution for Resting-State fMRI Analysis.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Gadgil, S., Zhao, Q., Pfefferbaum, A., Sullivan, E. V., Adeli, E., Pohl, K. M.
2020; 12267: 528–38
- **Inpainting Cropped Diffusion MRI using Deep Generative Models.** *PRedictive Intelligence in MEDicine. PRIME (Workshop)*
Ayub, R., Zhao, Q., Meloy, M. J., Sullivan, E. V., Pfefferbaum, A., Adeli, E., Pohl, K. M.
2020; 12329: 91-100
- **Socially and Contextually Aware Human Motion and Pose Forecasting** *IEEE ROBOTICS AND AUTOMATION LETTERS*
Adeli, V., Adeli, E., Reid, I., Niebles, J., Rezatofighi, H.
2020; 5 (4): 6033–40
- **Vision-based Estimation of MDS-UPDRS Gait Scores for Assessing Parkinson's Disease Motor Severity.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*

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- Lu, M., Poston, K., Pfefferbaum, A., Sullivan, E. V., Fei-Fei, L., Pohl, K. M., Niebles, J. C., Adeli, E.
2020; 12263: 637–47
- **Deep Learning Identifies Morphological Determinants of Sex Differences in the Pre-Adolescent Brain.** *NeuroImage*
Adeli, E., Zhao, Q., Zahr, N. M., Goldstone, A., Pfefferbaum, A., Sullivan, E. V., Pohl, K. M.
2020: 117293
 - **Segmenting the Future** *IEEE ROBOTICS AND AUTOMATION LETTERS*
Chiu, H., Adeli, E., Niebles, J.
2020; 5 (3): 4202–9
 - **Image-to-Images Translation for Multi-Task Organ Segmentation and Bone Suppression in Chest X-Ray Radiography** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Eslami, M., Tabarestani, S., Albarqouni, S., Adeli, E., Navab, N., Adjouadi, M.
2020; 39 (7): 2553–65
 - **Skeleton-based structured early activity prediction** *MULTIMEDIA TOOLS AND APPLICATIONS*
Arzani, M. M., Fathy, M., Azirani, A. A., Adeli, E.
2020
 - **Spatiotemporal Relationship Reasoning for Pedestrian Intent Prediction** *IEEE ROBOTICS AND AUTOMATION LETTERS*
Liu, B., Adeli, E., Cao, Z., Lee, K., Sheno, A., Gaidon, A., Niebles, J.
2020; 5 (2): 3485–92
 - **Mammographic mass segmentation using multichannel and multiscale fully convolutional networks** *INTERNATIONAL JOURNAL OF IMAGING SYSTEMS AND TECHNOLOGY*
Xu, S., Adeli, E., Cheng, J., Xiang, L., Li, Y., Lee, S., Shen, D.
2020
 - **Editorial: Predictive Intelligence in Biomedical and Health Informatics** *IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS*
Adeli, E., Rezik, S. H., Park, S. H., Shen, D.
2020; 24 (2): 333-335
 - **FCN Based Label Correction for Multi-Atlas Guided Organ Segmentation.** *Neuroinformatics*
Zhu, H. n., Adeli, E. n., Shi, F. n., Shen, D. n.
2020
 - **Adversarial Cross-Domain Action Recognition with Co-Attention**
Pan, B., Cao, Z., Adeli, E., Niebles, J., Assoc Advancement Artificial Intelligence
ASSOC ADVANCEMENT ARTIFICIAL INTELLIGENCE.2020: 11815-11822
 - **Adolescent alcohol use disrupts functional neurodevelopment in sensation seeking girls.** *Addiction biology*
Zhao, Q. n., Sullivan, E. V., M#ller-Oehring, E. M., Honnorat, N. n., Adeli, E. n., Podhajsky, S. n., Baker, F. C., Colrain, I. M., Prouty, D. n., Tapert, S. F., Brown, S. A., Meloy, M. J., Brumback, et al
2020: e12914
 - **Disentangling Human Dynamics for Pedestrian Locomotion Forecasting with Noisy Supervision**
Mangalam, K., Adeli, E., Lee, K., Gaidon, A., Niebles, J., IEEE Comp Soc
IEEE COMPUTER SOC.2020: 2773–82
 - **Training confounder-free deep learning models for medical applications.** *Nature communications*
Zhao, Q. n., Adeli, E. n., Pohl, K. M.
2020; 11 (1): 6010
 - **Population-guided large margin classifier for high-dimension low-sample-size problems** *PATTERN RECOGNITION*
Yin, Q., Adeli, E., Shen, L., Shen, D.
2020; 97
 - **Confounder-Aware Visualization of ConvNets.** *Machine learning in medical imaging. MLMI (Workshop)*
Zhao, Q., Adeli, E., Pfefferbaum, A., Sullivan, E. V., Pohl, K. M.
2019; 11861: 328–36

- **Covariance Shrinkage for Dynamic Functional Connectivity.** *Connectomics in neuroImaging : third International Workshop, CNI 2019, held in conjunction with MICCAI 2019, Shenzhen, China, October 13, 2019, Proceedings. CNI (Workshop) (3rd : 2019 : Shenzhen Shi, China)*
Honnorat, N., Adeli, E., Zhao, Q., Pfefferbaum, A., Sullivan, E. V., Pohl, K.
2019; 11848: 32–41
- **Data Augmentation Based on Substituting Regional MRIs Volume Scores.** *Large-Scale Annotation of Biomedical Data and Expert Label Synthesis and Hardware Aware Learning for Medical Imaging and Computer Assisted Intervention : International Workshops, LABELS 2019, HAL-MICCAI 2019, and CuRIOUS 2019, held in c...*
Leng, T., Zhao, Q., Yang, C., Lu, Z., Adeli, E., Pohl, K. M.
2019; 11851: 32–41
- **High-Resolution Encoder-Decoder Networks for Low-Contrast Medical Image Segmentation.** *IEEE transactions on image processing : a publication of the IEEE Signal Processing Society*
Zhou, S., Nie, D., Adeli, E., Yin, J., Lian, J., Shen, D.
2019
- **Variational Autoencoder with Truncated Mixture of Gaussians for Functional Connectivity Analysis.** *Information processing in medical imaging : proceedings of the ... conference*
Zhao, Q., Honnorat, N., Adeli, E., Pohl, K. M.
2019; 11492: 867-879
- **Joint Classification and Regression via Deep Multi-Task Multi-Channel Learning for Alzheimer's Disease Diagnosis** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*
Liu, M., Zhang, J., Adeli, E., Shen, D.
2019; 66 (5): 1195–1206
- **Infant Brain Development Prediction With Latent Partial Multi-View Representation Learning** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Zhang, C., Adeli, E., Wu, Z., Li, G., Lin, W., Shen, D.
2019; 38 (4): 909–18
- **Novel Machine Learning Identifies Brain Patterns Distinguishing Diagnostic Membership of Human Immunodeficiency Virus, Alcoholism, and Their Comorbidity of Individuals.** *Biological psychiatry. Cognitive neuroscience and neuroimaging*
Adeli, E., Zahr, N. M., Pfefferbaum, A., Sullivan, E. V., Pohl, K. M.
2019
- **3-D Fully Convolutional Networks for Multimodal Isointense Infant Brain Image Segmentation** *IEEE TRANSACTIONS ON CYBERNETICS*
Nie, D., Wang, L., Adeli, E., Lao, C., Lin, W., Shen, D.
2019; 49 (3): 1123–36
- **Semi-Supervised Discriminative Classification Robust to Sample-Outliers and Feature-Noises** *IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE*
Adeli, E., Thung, K., An, L., Wu, G., Shi, F., Wang, T., Shen, D.
2019; 41 (2): 515–22
- **Multi-Channel 3D Deep Feature Learning for Survival Time Prediction of Brain Tumor Patients Using Multi-Modal Neuroimages** *SCIENTIFIC REPORTS*
Nie, D., Lu, J., Zhang, H., Adeli, E., Wang, J., Yu, Z., Liu, L., Wang, Q., Wu, J., Shen, D.
2019; 9: 1103
- **Multi-task prediction of infant cognitive scores from longitudinal incomplete neuroimaging data** *NEUROIMAGE*
Adeli, E., Meng, Y., Li, G., Lin, W., Shen, D.
2019; 185: 783–92
- **Difficulty-Aware Attention Network with Confidence Learning for Medical Image Segmentation**
Nie, D., Wang, L., Xiang, L., Zhou, S., Adeli, E., Shen, D., AAAI
ASSOC ADVANCEMENT ARTIFICIAL INTELLIGENCE.2019: 1085–92
- **Self-Supervised Representation Learning via Neighborhood-Relational Encoding**
Sabokrou, M., Khalooei, M., Adeli, E., IEEE
IEEE.2019: 8009–18
- **Imitation Learning for Human Pose Prediction**

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- Wang, B., Adeli, E., Chiu, H., Huang, D., Niebles, J., IEEE
IEEE.2019: 7123–32
- **Variational AutoEncoder for Regression: Application to Brain Aging Analysis**
Zhao, Q., Adeli, E., Honnorat, N., Leng, T., Pohl, K. M., Shen, D., Liu, T., Peters, T. M., Staib, L. H., Essert, C., Zhou, S., Yap, P. T., Khan, et al
SPRINGER INTERNATIONAL PUBLISHING AG.2019: 823–31
 - **Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection.** *IEEE transactions on pattern analysis and machine intelligence*
Adeli, E. n., Li, X. n., Kwon, D. n., Zhang, Y. n., Pohl, K. n.
2019
 - **Variational Autoencoder with Truncated Mixture of Gaussians for Functional Connectivity Analysis**
Zhao, Q., Honnorat, N., Adeli, E., Pfefferbaum, A., Sullivan, E. V., Pohl, K. M., Chung, A. C., Gee, J. C., Yushkevich, P. A., Bao, S.
SPRINGER INTERNATIONAL PUBLISHING AG.2019: 867–79
 - **Action-Agnostic Human Pose Forecasting**
Chiu, H., Adeli, E., Wang, B., Huang, D., Niebles, J., IEEE
IEEE.2019: 1423–32
 - **UNSUPERVISED FEATURE RANKING AND SELECTION BASED ON AUTOENCODERS**
Sharifipour, S., Fayyazi, H., Sabokrou, M., Adeli, E., IEEE
IEEE.2019: 3172–76
 - **AVID: Adversarial Visual Irregularity Detection**
Sabokrou, M., Pourreza, M., Fayyaz, M., Entezari, R., Fathy, M., Gall, J., Adeli, E., Jawahar, C. V., Li, H., Mori, G., Schindler, K.
SPRINGER INTERNATIONAL PUBLISHING AG.2019: 488–505
 - **Chained regularization for identifying brain patterns specific to HIV infection** *NEUROIMAGE*
Adeli, E., Kwon, D., Zhao, Q., Pfefferbaum, A., Zahr, N. M., Sullivan, E. V., Pohl, K. M.
2018; 183: 425–37
 - **Multi-Label Transduction for Identifying Disease Comorbidity Patterns.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Adeli, E., Kwon, D., Pohl, K. M.
2018; 11072: 575-583
 - **End-To-End Alzheimer's Disease Diagnosis and Biomarker Identification.** *Machine learning in medical imaging. MLMI (Workshop)*
Esmailzadeh, S., Belivanis, D. I., Pohl, K. M., Adeli, E.
2018; 11046: 337-345
 - **Chained regularization for identifying brain patterns specific to HIV infection.** *NeuroImage*
Adeli, E., Kwon, D., Zhao, Q., Pfefferbaum, A., Zahr, N. M., Sullivan, E. V., Pohl, K. M.
2018
 - **Exploring diagnosis and imaging biomarkers of Parkinson's disease via iterative canonical correlation analysis based feature selection** *COMPUTERIZED MEDICAL IMAGING AND GRAPHICS*
Liu, L., Wang, Q., Adeli, E., Zhang, L., Zhang, H., Shen, D.
2018; 67: 21–29
 - **Anatomy-guided joint tissue segmentation and topological correction for 6-month infant brain MRI with risk of autism** *HUMAN BRAIN MAPPING*
Wang, L., Li, G., Adeli, E., Liu, M., Wu, Z., Meng, Y., Lin, W., Shen, D.
2018; 39 (6): 2609–23
 - **Conversion and time-to-conversion predictions of mild cognitive impairment using low-rank affinity pursuit denoising and matrix completion** *MEDICAL IMAGE ANALYSIS*
Thung, K., Yap, P., Adeli, E., Lee, S., Shen, D., Alzheimers Dis Neuroimaging Init
2018; 45: 68–82
 - **Adversarially Learned One-Class Classifier for Novelty Detection**
Sabokrou, M., Khalooei, M., Fathy, M., Adeli, E., IEEE
IEEE.2018: 3379–88
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- **Multi-label Transduction for Identifying Disease Comorbidity Patterns**
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