VAMSI KRISHNA ITHAPU

EXECUTIVE SUMMARY

I build Artificial Intelligence (AI) technologies for health and wellness.

I have experience in strategizing AI research and development (R&D) portfolio for product-driven research; executing large-scale & complex projects by balancing novel research, prototyping & engineering; and people management of AI teams.

Over the past 15 years, my contributions spanned across various AI-driven domains including conversational and social understanding, multimodal machine learning, egocentric computer vision, enhancing hearing health via wearables, efficient (on-device) computing, real-time inference, neuroimaging, clinical trials design via AI and personalization of AI systems.

I am an active member of AI conference program committees. I published 50+ research papers (3600+ citations, i10-Index: 37) and contributed 10+ patents.

CONTACT

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WORK EXPERIENCE

SENIOR RESEARCH SCIENCE MANAGER

Meta Reality Labs Research [Mar 2023 onwards]

- Setting R&D strategy and driving execution of AI projects in Meta Reality Labs Research Audio, supporting discovery, development and prototyping of always-on on-device egocentric AI systems -- enabling audio, conversational & social experiences on Smart Glasses, Augmented & Virtual Reality devices.
- Executed 10+ research projects over the past 4 years and drove novel IP creation for new application and experience development across Ray-ban Meta & Oculus Quest/Rift product lines. Examples: Conversation Focus in Ray-Man glasses, Audio propagation in Oculus Rift/Quest etc
- Driving e2e system design and integration of audio and speech based AI technologies for Augmented and Superhuman hearing with Ray-Ban Meta smart glasses. Owning designs that drive adoption of novel AI from open-source, as well as ground-up innovation of new models.
- Driving cross-functional partnerships with wearables product stakeholders, influencing product-sense on technologies for

improving hearing health. Influencing company-level priorities on wearables computing.

- Partnering with foundational AI teams in Meta on novel org-level investments driving personalization of AI technologies.
- Managing a team of ML researchers and engineers (audio, speech, vision and language domains). And broadly contributed to hiring a large team (30+) of AI and DSP affiliated full-time employees working across the team's portfolio.
- Mentoring AI-driven projects' technical leadership and guided 23+ PhD internships in audio-visual, conversational and acoustics (physics) driven AI R&D.
- Presented the Reality Labs Research vision on egocentric audio-visual computing for hearing and conversational applications at various technical and academic forums.

RESEARCH SCIENCE MANAGER & TECHNICAL LEAD

Facebook Reality Labs Research [Mar 2019 – Mar 2023]

- Executed R&D for AI technologies supporting superhuman hearing experiences in smart glasses & augmented reality applications. Proposed technology goals, build key performance indicators and drove execution timeline with project managers.
- Contributed to novel egocentric audio-visual learning benchmarks (datasets, tasks and experience definition), and open-sourced various ML benchmarks supporting the broader audio-visual AI research in wearables computing. Examples: Ego4d, EasyCom, SoundSpaces etc.
- Managed a team of audio-visual machine learning researchers contributing into speech, audio and audio-visual egocentric processing technologies with egocentric (wearables) sensing platform.
- Mentored AI-affiliated researchers and 15+ internship students (PhD track) on machine learning systems for conversational understanding.
- Presented the Reality Labs Research vision on egocentric audio-visual computing for hearing and social applications at various technical and academic forums.

RESEARCH SCIENTIST

Oculus Research [Mar 2018 – Mar 2019]

- Designed & developed machine learning methods for spatializing audio & sounds, with applications in personalizing communication and context generation in virtual reality.

- Founding member of AI focused research in wearables audio computing.
- Initiated themes and influenced leadership on creating AI-focused team with a vision for egocentric AI technologies in conversational and social applications.

RESEARCH / PROJECT ASSISTANT

University of Wisconsin-Madison [Jan 2012 – Feb 2018]

Worked on PhD Thesis while employed as research / project assistant under the guidance of Prof. Vikas Singh, at Department of computer sciences; and jointly affiliated with Alzheimer's disease research center. Thesis focused on 'Exploiting Structure for Designing Clinical Trials: Testing, Learning and Inference Algorithms'. Contributed to novel AI algorithms and medical diagnosis patent for Alzheimer's disease research.

RESEARCH ENGINEER

National University of Singapore [Aug 2010 – May 2011]

Designed & tested novel signal processing algorithms for sonar-based acoustic data analysis at Acoustic Research Laboratory

EDUCATION

UNIVERSITY OF WISCONSIN-MADISON, MADISON, USA

Doctor of Philosophy (Ph.D), Computer Sciences [Sep 2011 – Feb 2018]

- *Thesis*: Exploiting Structure for Designing Clinical Trials: Testing, Learning and Inference Algorithms
- *Minor:* Electrical and Computer Engineering
- *Advisor*: Vikas Singh
- *Grade Point Average*: 3.58/4

INDIAN INSTITUTE OF TECHNOLOGY, GUWAHATI, INDIA

Bachelor of Technology (B.Tech), Electronics and Communication Engineering [Aug 2006 – May 2010]

- *Thesis*: Investigation of Diversity in Multiple Input Multiple Output (MIMO) SAR Imaging Systems
- *Advisor*: Amit Kumar Mishra
- *Grade Point Average*: 8.52/10

PUBLICATIONS

CONFERENCES

1. EgoAdapt: Adaptive Multisensory Distillation and Policy Learning for Efficient Egocentric Perception; S Chowdhury, S. Biswas, S. Nag, T. Nagarajan, C. Murdock, I. Ananthabhotla, Y. Qian, V. K. Ithapu, D. Manocha, Ruohan Gao; International Conference on Computer Vision (ICCV) 2025

2. Modulating state space model with slowfast framework for compute-efficient ultra-low latency speech enhancement; L. Cheng, A. Pandey, B. Xu, T. Delbruck, V. K. Ithapu, S. C. Liu; IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2025
3. Hearing anywhere in any environment; X. Liu, A. Kumar, P. Calamia, S. Amengual, C. Murdock, I. Ananthabhotla, P. Robinson, E. Shlizerman, V. K. Ithapu, R. Gao; Computer Vision and Pattern Recognition (CVPR) 2025
4. Spherical world-locking for audio-visual localization in egocentric videos; H.Yun, R. Gao, I. Ananthabhotla, A. Kumar, J. Donley, C. Li, G. Kim, V. K. Ithapu, C. Murdock; European conference on Computer Vision (ECCV) 2024
5. Self motion as supervision for egocentric audio visual localization; C. Murdock, I. Ananthabhotla, H. Lu, V. K. Ithapu; IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2024
6. Hearing loss detection from facial expressions in 1-1 conversations; Y. Yin, I. Ananthabhotla, V. K. Ithapu, S. Petridis, Y. Wu, C. Miller; IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2024
7. The audio-visual Conversation graph: From an egocentric perspective; W. Jia, M. Liu, H. Jiang, I. Ananthabhotla, J. Rehg, V. K. Ithapu, R. Gao; Computer Vision and Pattern Recognition (CVPR) 2024
8. Learning to personalize equalization for high-fidelity spatial audio reproduction; A. Gupta, P. Hoffmann, S. Prepelită, P. Robinson, V. K. Ithapu, D. Alon; IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2023
9. LA-VocE: Low-SNR audio-visual speech enhancement using neural vocoders; R. Mira, B. Xu, J. Donley, A. Kumar, S. Petridis, V. K. Ithapu, M. Pantic; IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2023
10. Leveraging heteroscedastic uncertainty in learning complex spectral mapping for single channel speech enhancement; K. Chen, D. Wong, K. Tan, B. Xu, A. Kumar, V. K. Ithapu; IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2023
11. Towards improved room impulse response estimation for speech recognition; A. Ratnarajah, I. Ananthabhotla, V. K. Ithapu, P. Hoffmann, D. Manocha, P. Calamia; IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2023
12. Egocentric auditory attention localization in conversations; F. Ryan, H. Jiang, A. Shukla, J. M. Rehg, V. K. Ithapu; Computer Vision and Pattern Recognition (CVPR) 2023
13. Novel view Acoustic Synthesis; C. Chen, A. Richard, R. Shapovalov, V. K. Ithapu, N. Neverova, K. Grauman, A. Vedaldi; Computer Vision and Pattern Recognition (CVPR) 2023
14. Chat2Map: Efficient scene mapping from multi-ego conversations; S. Majumder, H. Jiang, P. Moulon, E. Henderson, P. Calamia, K. Grauman, V. K. Ithapu; Computer Vision and Pattern Recognition (CVPR) 2023
15. HRTF personalization based on ear morphology; M. Warnecke, S. Jamison, S. Prepelita, P. Calamia, V. K. Ithapu; Audio Engineering Society Conference 2022

16. SAQAM: Spatial Audio Quality Assessment Metric; P. Manocha, A. Kumar, B. Xu, A. Menon, I. Gebru, V. K. Ithapu, P. Calamia; Interspeech 2022
17. Egocentric Deep Multi-Channel Audio-Visual Active Speaker Localization; H. Jiang, C. Murdock, V. K. Ithapu; Computer Vision and Pattern Recognition (CVPR) 2022
18. Ego4D: Around the World in 3,000 Hours of Egocentric Video; K. Grauman, [many-authors], V. K. Ithapu, [many-authors], J. Malik; Computer Vision and Pattern Recognition (CVPR) 2022 ***(Oral)***
19. Continual self-training with bootstrapped remixing for speech enhancement; E. Tzinis, Y. Adi, V. K. Ithapu, B. Xu, A. Kumar; IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2022
20. Deep Impulse Responses: Estimating and Parameterizing Filters with Deep Networks; A. Richard, P. Dodds, V. K. Ithapu; IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2022
21. DPLM: A Deep Perceptual Spatial-Audio Localization Metric; P. Manocha, A. Kumar, B. Xu, A. Menon, I. Gebru, V. K. Ithapu, P. Calamia; IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA) 2021
22. Filtered Noise Shaping for Time Domain Room Impulse Response Estimation From Reverberant Speech; C. Steinmetz, V. K. Ithapu, P. Calamia; IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA) **(*Best Student Paper Award)***
23. Audio Visual Floor Plan Reconstruction; C. Chen, U. Jain, C. Schissler, S. V. A. Gari, Z. Al-Halah, V. K. Ithapu, P. Robinson, K. Grauman; International Conference on Computer Vision (ICCV) 2021
24. Egocentric Pose Estimation from Human Vision Span; H. Jiang, V. K. Ithapu; International Conference on Computer Vision (ICCV) 2021
25. Do sound event representations generalize to other audio tasks? A case study in audio transfer learning; A. Kumar, Y. Wang, V. K. Ithapu, C. Fuegen; InterSpeech 2021
26. On the predictability of HRTFs from ear shapes using deep networks; Y. Zhou, H. Jiang, V. K. Ithapu; IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2021
27. A Sequential Self Teaching Approach for Improving Generalization in Sound Event Recognition; A. Kumar, V. K. Ithapu; International Conference on Machine Learning (ICML) 2020
28. SeCoST: Sequential Co-Supervision for Weakly Labeled Audio Event Detection; A. Kumar, V. K. Ithapu; IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2020
29. SoundSpaces: Audio-Visual Navigation in 3D Environments; C. Chen, U. Jain, C. Schissler, S. V. A. Gari, Z. Al-Halah, V. K. Ithapu, P. Robinson, K. Grauman; European Conference on Computer Vision (ECCV) 2020
30. Decoding the Deep: Exploring Class Hierarchies of Deep Representations using Multiresolution Matrix Factorization; V. K. Ithapu; Explainable Computer Vision Workshop, Computer Vision and Pattern Recognition (CVPR) 2017 PDF
31. When can Multi-site Datasets be Pooled for Regression: Hypothesis Tests, L2-consistency and Neuroscience Applications; H. Hao, Y. Zhang, V. K. Ithapu, G. Wahba, S. C. Johnson, V. Singh; International Conference on Machine Learning (ICML) 2017

32. The Incremental Multiresolution Matrix Factorization Algorithm; V. K. Ithapu, R. Kondor, S. C. Johnson, V. Singh; Computer Vision and Pattern Recognition (CVPR) 2017
33. On the Interplay of Network Structure and Gradient Convergence in Deep Learning; V. K. Ithapu, S. Ravi, V. Singh; 54th Allerton Conference on Communication, Control and Computing (Allerton) 2016
34. Hypothesis Testing in Unsupervised Domain Adaptation with Applications in Alzheimer's Disease; H. Hao, V. K. Ithapu, S. Ravi, V. Singh, G. Wahba, S. C. Johnson; Neural Information Processing Systems (NeurIPS) 2016
35. Experimental Design on a Budget for Sparse Linear Models and Applications; S. Ravi, V. K. Ithapu, S. C. Johnson, V. Singh; International Conference on Machine Learning (ICML), 2016
36. An NMF perspective on Binary Hashing; L. Mukherjee, S. Ravi, V. K. Ithapu, T. Holmes, V. Singh; International Conference on Computer Vision (ICCV), 2015
37. A Projection Free Method for Generalized Eigenvalue Problem with a Nonsmooth Regularizer; S. J. Hwang, M. Collins, S. Ravi, V. K. Ithapu, N. Adluru, S. C. Johnson, V. Singh; International Conference on Computer Vision (ICCV), 2015 PDF
38. Randomized Denoising Autoencoders for Smaller and Efficient Imaging based AD Clinical Trials; V. K. Ithapu, V. Singh, O. Okonkwo, S. C. Johnson; Medical Image Computing and Computer Assisted Intervention (MICCAI), 2014
39. Speeding up Permutation Testing in Neuroimaging; V. K. Ithapu*, C. Hinrichs*, Q. Sun, S. C. Johnson, V. Singh; Neural Information Processing Systems (NeurIPS), 2013 ***(Oral Spotlight)***
40. GOSUS: Grassmannian Online Subspace Updates with Structured-sparsity; J. Xu, V. K. Ithapu, L. Mukherjee, J. Rehg, V. Singh; International Conference on Computer Vision (ICCV), 2013
41. Fundus Image Registration for Vestibularis Research; V. K. Ithapu, A. Fritsche, A. Oppelt, M. Westhofen, T. M. Deserno; Proceedings of SPIE Medical Imaging, 2010
42. Diversity Employment into Target plus Clutter SAR Imaging using MIMO Configuration; V. K. Ithapu, A. K. Mishra, R. K. Panigrahi; Indian Antenna Week, 2010
43. Hybrid Diversity Strategy using MIMO Radar for Target Tracking; V. K. Ithapu, A. K. Mishra; IEEE Applied Electromagnetics Conf (AEMC), 2009

JOURNALS

1. Remixit: Continual self-training of speech enhancement models via bootstrapped remixing; E. Tzinis, Y. Adi, V. K. Ithapu, B. Xu, P. Smaragdis, A. Kumar; IEEE Journal on Selected Topics in Signal Processing 2022
2. A Framework for Designing HRTF Distance Metrics that Capture Localization Perception; I. Ananthabhotla, V. K. Ithapu, O. Brimijoin; Journal of Acoustics Society of America (JASA), 2021
3. Dimension constraints improve hypothesis testing for large-scale, graph-associated, brainimage data; T. Vo, A. Mishra, V. K. Ithapu, V. Singh, M. Newton; Biostatistics, 2021
4. Accelerating Permutation Testing in Voxel-wise Analysis through Subspace Tracking: A new plugin for SnPM; F. Gutierrez-Barragan, V. K. Ithapu, C. Hinrichs, C. Maumet, S. C. Johnson, T. E. Nichols, V. Singh; Neuroimage, 2017

5. Relative Vascular Permeability and Vascularity across different regions of the rat nasal mucosa: Implications for Nasal Physiology and Drug Delivery; N. N. Kumar, M. Gautam, J. J. Lochhead, D. J. Wolack, V. K. Ithapu, V. Singh, R. G. Thorne; Nature Scientific Reports, 2016
6. Imaging based Enrichment Criteria using Deep Learning Algorithms for Efficient Clinical Trials in MCI; V. K. Ithapu, V. Singh, O. C. Okonkwo, R. J. Chappell, N. M. Dowling, S. C. Johnson; Alzheimer's and Dementia, 2015
7. Extracting and Summarizing White Matter Hyperintensities using Supervised Segmentation Methods in Alzheimer's Disease Risk and Aging Studies; V. K. Ithapu, V. Singh, C. Lindner, B. Austin, C. Hinrichs, C. Carlsson, B. Bendlin, S. C. Johnson; Human Brain Mapping, 2013
8. Cooperative Multi-Monostatic SAR: A New SAR Configuration for Improved Resolution; V. K. Ithapu, A. K. Mishra; IEEE Antennas and Wireless Propagation Letters, 2010

ABSTRACTS & ARXIV

1. EasyCom: An Augmented Reality Dataset to Support Algorithms for Easy Communication in Noisy Environments, J. Donley, V. Tourbabin, J. Lee, M. Broyles, H. Jiang, J. Shen, M. Pantic, V. K. Ithapu, R. Mehra
2. On Architectural Choices in Deep Learning: From Network Structure to Gradient Convergence & Parameter Estimation, V. K. Ithapu, S. Ravi, V. Singh
3. Convergence of Gradient based Pre-training in Denoising Autoencoders, V. K. Ithapu, S. Ravi, V. Singh
4. An MRI-derived disease marker associates with conversion to MCI in middle-aged adults at risk for AD, Alzheimer's and Dementia, 2018
5. Machine Learning Algorithms for experiment design in high dimensional longitudinal cohort studies: Implications for clinical trials, Alzheimer's and Dementia, 2017
6. Statistical algorithms for harmonizing biomarker distributions across different cohorts, sites and assays: Applications to CSF measurements, Alzheimer's and Dementia, 2017
7. Deductive Mode Finding: Tracing back cognitive decline in biomarker positive middle-aged adults, Alzheimer's and Dementia, 2017
8. Extracting white matter hyperintensities in Alzheimer's disease risk and aging studies using supervised segmentation methods, Alzheimer's and Dementia, 2013

BOOK CHAPTERS

1. V. K. Ithapu, V. Singh, S. C. Johnson, Randomized Deep Learning Methods for Clinical Trial Enrichment and Design in Alzheimer’s Disease, Deep Learning for Medical Image Analysis (1st Edition) ISBN: 9780128104088; Chapter 15

DOCTORAL THESIS

Exploiting Structure for Designing Clinical Trials: Testing, Learning and Inference Algorithms
PhD Advisor: Vikas Singh
Other committee members: Sterling C Johnson, Xiaojin Zhu, Charles Dyer, Mohit Gupta

PATENTS

1. Contextual awareness subsystem for augmented hearing; S. Baligar, V. K. Ithapu, K. Godin; US Patent App. 18/505,987
2. Audio system for Virtual Reality Applications; P. Dodds, N. Balsam, V. K. Ithapu, O. Brimijoin, S. Clapp, C. Miller, M. Warnecke, T. Lunner, P. Calamia, M Khaleghimeybodi, P. Hoffmann, R. Mehra, S. Estrada, T. Oishi; US Patent App. 17/677,902
3. Generating digital floorplans from sparse digital video utilizing an audio-visual floorplan reconstruction machine learning model; K. Grauman, S. Prakash, S. Gari, V. K. Ithapu, C. Schissler, P. Robinson, A. Gupta; US Patent 11,810,354
4. Egocentric pose estimation from human vision span; H. Jiang, V. K. Ithapu; US Patent App. 17/475,063
5. Head-related transfer function determination using reflected ultrasonic signal; M. Warnecke, P. Hoffmann, V. K. Ithapu, S. Prepelita, P. Robinson; US Patent App. 17/220,588
6. Head-related transfer function determination using cartilage conduction; M. Khaleghimeybodi, V. K. Ithapu, T. Miller; US 11,445,318
7. Wearer Identification Based On Personalized Acoustic Transfer Functions; J. Donley, V. Tourbabin, V. K. Ithapu; US 11526589
8. Personalized Equalization Of Audio Output Using Machine Learning; T. Cho, V. K. Ithapu, US 10823960
9. Personalized Equalization Of Audio Output Using 3D Reconstruction Of An Ear Of A User; T. Cho, P. Hoffman, V. K. Ithapu, M. Mirgabheri; US 10880667
10. Personalized Equalization Of Audio Output Using Visual Markers For Scale And Orientation Disambiguation; T. Cho, M. Mirbagheri, V. K. Ithapu; US 10976543
11. Selecting Spatial Locations For Audio Personalization; V. K. Ithapu, H. G. Hassager, O. Brimijoin; US 11,523,240
12. Individualization of Head Related Transfer Function Templates For Presentation Of Audio Content; O. Brimijoin, H. G. Hassager, V. K. Ithapu, P. Robinson; US 10932083
13. Room Acoustic Matching Using Sensors On Headset; O. Brimijoin, S. A. Gari, C. Schissler, S. Colburn, V. K. Ithapu, P. Robinson; US 10897570
14. Medical Imaging System Providing Disease Prognosis; V. K. Ithapu, V. Singh, S. C. Johnson, O. C. Okonkwo; US 9687199B2

SELECTED AWARDS

- Best Student Paper Award, IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA) 2021
- Interviewed by CVPR Daily (RSIP Vision) on interpretability of deep networks 2017

- Patent Acceptance Award, Wisconsin Alumni Research Foundation (WARF) 2017
- (Finalist), Best Poster Award, Midwest Machine learning Symposium 2017
- MICCAI Student Travel Award 2014
- NeurIPS Student Travel Award 2013
- Machine Learning Summer School (MLSS) Travel Scholarship 2012
- DAAD - Working Internships in Science and Engineering (WISE) Scholarship 2009
- Selected among top 1% in Joint Entrance Examination (JEE) 2005
- Rudra Memorial Award - Topper in Higher Secondary 2003
- Selected for National Maths Olympiad (top 5%) 2002

REVIEWING ACTIVITIES

AREA CHAIR

- Neural Information Processing Systems (NeurIPS) 2025
- Neural Information Processing Systems (NeurIPS) 2024
- Winter Conference on Applications of Computer Vision (IEEE WACV) 2019
- Medical Image Computing and Computer Assisted Intervention (MICCAI) 2018

MANUSCRIPT / PAPER REVIEWER

- International Conference on Learning Representations (ICLR)
- International Conference on Machine Learning (ICML)
- Computer Vision and Pattern Recognition (CVPR)
- International Conference on Computer Vision (ICCV)
- European Conference on Computer Vision (ECCV)
- Neural Information Processing Systems (NeurIPS)
- Transactions on Machine Learning Research (TMLR)
- International Conference on Acoustics, Speech and Signal Processing (IEEE ICASSP)
- Machine Learning and Signal Processing (IEEE MLSP)
- Signal Processing Magazine (IEEE Magazine)
- Transactions on Pattern Analysis and Machine Intelligence (PAMI)
- International Joint Conference on Artificial Intelligence (IJCAI)
- International Conference on Artificial Intelligence and Statistics Association of the Advancement of Artificial Intelligence (AAAI)
- International Conference on Speech Technologies (InterSpeech)
- Transactions on Neural Networks and Learning Systems (IEEE TNNLS)
- Winter Conference on Applications of Computer Vision (WACV)
- Conference Medical Imaging with Deep Learning (MIDL)
- Asian Conference on Computer Vision (ACCV)
- Neurobiology of Aging (Elsevier)
- Medical Image Computing and Computer Assisted Intervention (MICCAI)
- Transactions on Medical Imaging (IEEE TMI)
- Journal of Magnetic Resonance Imaging (Wiley)
- Neuroimage (Elsevier)

OPENSOURCED TOOLBOXES

- Ego4D: Audio Visual Diarization Benchmark Suite
  https://github.com/EGO4D/audio-visual
- EasyCom: An Augmented Reality Dataset to Support Algorithms for Easy Communication in Noisy Environments
  https://github.com/facebookresearch/EasyComDataset
- Incremental Multiresolution Matrix Factorization
  http://pages.cs.wisc.edu/~vamsi/projects/incmmf.html
- Design Choice in Deep Learning (R Shiny)
  http://pages.cs.wisc.edu/~vamsi/DLDesignChoices
- Rapid Permutation Testing in Neuroimaging (MATLAB)
  http://felipegb94.github.io/RapidPT/ (a patch for Statistical Nonparametric Mapping Toolbox, > 500 user downloads on NITRC)
- Randomized Denoising Autoencoders for Neuroimaging (MATLAB)
  https://www.nitrc.org/projects/rdacodes/
- Wisconsin White Matter Hyperintensities Segmentation Toolbox (MATLAB)
  https://www.nitrc.org/projects/w2mhs/ (> 2100 downloads on NITRC and SourceForge)

COMPUTING TOOLKIT

LANGUAGES

Python, Matlab, R, Mathematica, Octave

SOTWARE

PyTorch, Tensorflow, VistualStudio, MatConvNet, AFNI, SPM, SnPM, VBM8, FSL IPE, HTML, LATEX, VisualDSP++