



EDUCATION

Master of Science | Biomedical Engg. | The University of Texas at Dallas | GPA: 3.83 | Graduation: May 2020
 B.Tech. & M.Tech. | BioEngg. | Indian Institute of Technology Madras | GPA: 7.84 | Graduation: July 2018

PROFESSIONAL EXPERIENCE & AWARDS

Part time **graduate research assistant** at Bioinformatics & Otolaryngology departments, **UTSW medical center** Aug 2019 – Present
 Part time **graduate research assistant** at the **Callier center for Communication Disorders, UT Dallas** Jun-Aug 2019
Teaching assistant and undergraduate research assistant, IIT Madras Aug 2017 - May 2018
 Invited member of honor society **Phi Kappa Phi** for excellence in graduate academic standing Oct 2019
 Awarded competitive **Erik Jonsson Scholarship** given to select meritorious incoming graduate students in UTD Fall 2018-19

TECHNICAL SKILLS

Machine Learning : scikit-learn:- Classical, ensemble classification and regression models, dimensionality reduction (PCA, LDA, SVD)
Programming : Python (Keras, TensorFlow, numba, scipy, pandas, opencv), MATLAB (image processing, deep learning, stats)
Bioinformatics : Computational Systems Biology, Data Structures & Algorithms for biologists, molecular simulations of proteins

PROJECTS

Estimating liver fibrosis severity from Ultrasound texture, Prof Albert Montillo, UTSW medical center (Present)
Estimating voice outcome post laryngectomy based on vocal fold viscoelasticity, Prof Ted Mau, UTSW medical center (Present)
Decoding speech and articulation from brain signals, Prof. Jun Wang, University of Texas at Austin (UTD prev) (Jun-Aug 2019)
 Predicting onset and end of acoustic speech signal and regressing jaw motion based on MEG patterns for visual text stimuli.
Demand Forecasting in time series Bike-sharing systems in SFO weather, Prof Gautam Kunapuli (UTD) (Mar-May2019)
 Analyzed Ensemble and deep learning (GRU, LSTM) pipeline-performance incorporating multi-step time-delay auto-regression.
Song classification for predicting Billboard Top 100 hit list, Prof Gautam Kunapuli (UTD) (Mar 2019)
 ML classification prediction pipelines - SVM, Random forest, XGBoost, kNN based on ROC-AUC curve & precision-recall values.
Ultrasound coupled injectrode hydrogel system for chronic lower back pain, Prof Danieli Rodrigues (UTD) (Jan-May 2019)
 Proposed design, testing and biocompatibility performance measures for “minimally-invasive on-demand therapeutic device”
 combining state-of-the-art technologies- portable ultrasound, injectable drug-loaded hydrogels and injectable electrodes
Biosynthetic nerve implant based neural prosthesis for peripheral nerve-gap injuries, Prof. Romero-Ortega (UTD) (Aug-Nov 2018)
Novel *In situ* forming adhesive hydrogels for wound management applications, Prof. A. Jayakrishnan (IITM) (Aug 2017 – Jun 2018)
 Characterized swelling, morphology (SEM), viscoelasticity (rheology), drug encapsulation and release profiles of polyaldose-gels
Nano-vehicles for theranostics of neurodegenerative diseases, Prof. Karunya Kandimalla (UMinnesota) (May-Jul 2016)
 Optimized formulation protocol & characterized self-assembled polymeric colloidal nanoparticle drug carrier system

RELEVANT COURSEWORK

Signals & systems | Machine Learning (**CS6301**) | Biomedical **Image processing** | **Deep learning** for precision healthcare (at **UTSW**)
 Nanoscience & Drug delivery:- self-assembled biomaterials, Adv. engineering nanomaterials for implantable medical devices
 Neuro-medical Engineering:- Advances in Neural Engineering methods & techniques, Systems Neuroscience, Cognitive Psychology

LEADERSHIP & COMMUNITY SERVICE

Judge, Dallas Regional Science & Engineering fair Feb 2019
Mentor & Outreach, Team Ultimate Frisbee, IIT Madras Mar 2017 – June 2018
Student Representative, Society for Promotion of Indian Classical Music Arts Culture (SPICMACAY) **IIT Madras** Jun 2014 - Apr 2018
Outreach, TEDx IIT Madras Oct-Dec 2015
Project Manager, National Service Scheme – IIT Madras May 2014 - Apr 2015