# Srihari Maruthachalam



Machine Learning Enthusiast, relish solving various real-world problems using Deep Learning and Machine Learning algorithms

## Educational Qualifications

2016 - **Indian Institute of Technology**, *Madras*, MS by Research in Computer Science and Engineering, Present 8.0/10.

2010 - 2014 Anna University, Chennai, B.Tech. Information Technology, 8.2/10.

2008 - 2010 Devanga Higher Secondary School, Coimbatore, Science and Mathematics, 12, 8.3/10.

Earlier days - **Devanga Higher Secondary School**, *Coimbatore*, General Studies, 10, 8.3/10. 2008

### **Publications**

EMBC 2019 **Srihari Maruthachalam**, Mari Ganesh Kumar, and Hema A Murthy, *Time Warping Solutions for Classifying Artifacts in EEG* 2019 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) 2019, Germany

Interspeech **Srihari Maruthachalam**, Sidharth Aggarwal, Mari Ganesh Kumar, Mriganka Sur, and Hema A Murthy, 2018 Brain-Computer Interface using Electroencephalogram Signatures of Eye Blinks. Proc. Interspeech 2018, 1059-1060, Hyderabad, India

#### Selected Courses

Credited Kernel Methods for Pattern Analysis • Introduction to Research • Speech Technology • Advanced Data Structures & Algorithms • Linear Algebra and Random Processes • Pattern Recognition

Audited Deep Learning • Computational Models of Cognition

#### Selected Projects

MNIST Stochastic, Batch Gradient Descent, Adam, Nesterov based handcrafted Neural Network for MNIST handwritten characters and fashion images classifier • Python, Numpy

Convolutional Neural Network based classifier for MNIST handwritten characters and fashion images classifier  $\bullet$  Python, Numpy, PyTorch

BFish Mail Non IMAP and non POP based hassle-free database powered Mailing and Chatting interface • PHP, MySQL, Apache

SEAT Student Elective Allocation Tool for generating elective allocations from student courses preference  $\bullet$  Java, PHP, MySQL, Apache

DimintOS A cloud-based operating system where the user can manage files, processes and customize • C, Shell, PHP, MySQL, Apache

#### Skills

Languages Matlab  $\bullet$  Python  $\bullet$  C  $\bullet$  C++  $\bullet$  Java  $\bullet$  ASP.Net  $\bullet$  PHP  $\bullet$  MySQL

Tools Numpy • PyTorch • Tensorflow • Keras • Git •  $\LaTeX$ • EEGLab

## Professional Experience

Jul 2019 - Project Associate, Indian Institute of Technology, Madras, Chennai.

Present Signal processing and speech synthesis for determined people in mobile technology

Dec 2016 - Teaching Assistant, Indian Institute of Technology, Madras, Chennai.

Jun 2019 Half-Time Research Assistantship (HTRA) funded by MHRD, India

Aug 2015 - Programmer Analyst, Cognizant Technology Solutions India Pvt Ltd., Chennai.

Jan 2017 Full stack developer built workflow management for a reputed insurance industry using ASP.Net, jQuery and Entity Framework

## Position of Responsibilities

Research Councillor, Indian Institute of Technology, Madras.

The departmental representative for Research scholars takes responsibilities of addressing concerns and feedback to the Dean of Academic Research (IITM)

Placement Core, Indian Institute of Technology, Madras.

Placement core manages the placement process for students and scholars for the department

**Teaching Assistant**, Indian Institute of Technology, Madras.

Teaching assistant for Introduction to Programming Languages and Programming Paradigm

Design Core, Indian Institute of Technology, Madras.

Design team core takes responsibilities of designing the website, poster, and T-Shirts for Research Scholars Day festive

## Scholastic Achievements

GATE 2016 Top 1.5% among 1 million+ candidates

Academic Awarded Second prize in Code Debugging by SNS College of Technology in the year 2011

Engineering Awarded First prize in E Graph(Engineering Graphics) by Adithya Institute of Technology in the year 2010

Coding Awarded First prize in Bug Hunt, Code Pairing, Junk Funk by PSG College of Technology in the year 2013

Awarded Second prize in Code Chat by PSG College of Technology in the year 2013

Awarded Eighth prize in All India level TopCoders by Adithya Institute of Technology in the year 2012

Awarded First prizes in Code Debugging Contests by Easa College of Engineering and Technology, Park College of Engineering and Technology and KGISL Institute of Technology in the year 2012, 2012 and 2011 respectively

Awarded Second prize in Code Debugging by SNS College of Technology in the year 2011

Engineering Awarded First prize in E Graph(Engineering Graphics) by Adithya Institute of Technology in the year 2010

# Conference and Workshop Attended

IEEE Engineering in Medicine and Biology Society (EMBC) 2019, Germany

Centre for Computational Brain Research 2019, IIT Madras

Interspeech 2018, Hyderabad

Neuromorphic Computing Workshop 2018, IISc Bangalore

Centre for Computational Brain Research 2018, IIT Madras

Brain Modes 2017, National Brain Research Centre, New Delhi

#### Non Curricular Skills

Languages English • Tamil • Telugu