Subhashree Radhakrishnan

Curriculum Vitae

3500 B,Fox-ridge Apartments
VA-24060
United States
+1 (540) 449 8954
subha@vt.edu
www.linkedin.com/in/subhashree-radhakrishnan-b0b0048b
https://github.com/subhashreeradhakrishnan

Objective

Seeking Summer Internship position pertinent to the fields of Artficial Intelligence, Machine Learning, Computer Vision, Distributed Robotics, Algorithm development, Machine Perception and Automation Controls.

Education

2016–2018 **Masters in Computer Engineering** , *Virginia Polytechnic Institute and State University*, Blacksburg.
Courses: Artificial Intelligence,Computer Vision, Advanced Machine Learning

2012–2016 **Bachelor in Electrical and Electronic Engineering**, *Amrita School Of Engineering*, Coimbatore,India, ***9.26****/10*.

- Was awarded the **Outstanding Student Award** for 2014-2015
- Secured Academic proficiency award for topping the department [2013-2015]

Technical Skill-set

Software Modules/packages: Labview, MATLAB, Energia, Keil, OpenCV, Fritzing, Eagle, Latex, Py-Charm,Upstart, ZeroMQ, Crontab
Platforms worked: Raspberry pi,MSP430, Aurdino, GPS Module,Beagle Bone Black,Beagle Board,SPI and I2C protocols, Internet Of Things, Git, RF modules, Image Processing,Speech Processing, PCB,sci-kit, Designing
Programming: C,C++,Python,R Language
Certifications: Data Structures and Algorithms on Coursera

Relevant Experience

Feb-July2016 **DEVELOPING INTELLIGENT CONTROL AND AUTOMATED APPLICATIONS IN BIO-HYBRID SYSTEMS – Undergraduate Exchange Student, University Of Paderborn, Germany**.

- Automated Gardening system and day night cycle using Raspberry pi, rpi camera and RF modules
- Interfaced I2C, SPI sensors with stepper motors and artificial artefacts to simulate photo-tropism. Robotic Node prototype was developed to be interfaced in distributed bio-hybrid system and was monitored through IOT.
- Developed Intelligent Control Algorithm in Image Processing for tracking the motion of plant tip. This was fed to a neural network controller for further deciding the position of light to be switched ON for effectively controlling shape of plant.

May – July 2015 **SPEECH EMOTION RECOGNITION** ***–Summer Research Intern, Indian Institute Of Sciences India***.

- Devised a hybrid algorithm of LPC, LPCC, OSALPC, and LFCC and used GMM classifier for emotion recognition that achieved improved recognition rate.
- A GUI was developed for the same and implemented on beagle board through MATLAB Simulink interface.
- **PUBLICATION:** Paper titled **'Speech Emotion Recognition: Performance Analysis Based on Fused Algorithms and GMM Modelling'** published in Indian Journal Of Science and Technology (Scopus Indexed)

Projects

Fall-Spring 2016 **FIGHT DETECTION IN VIDEOS USING CONVOLUTIONAL NEURAL NETWORKS** – ***Project as a part of computer vision course***.

- Work involving theano framework and using optical flow density. Performance comparison of different feature extractions and classifiers including STIP, Optical flow and CNN.

Fall 2016 **DISTRIBUTED COMPUTER VISION USING VIEW PLANNING IN COOPERATIVE UAVs** – ***Project at Virginia Tech***.

- Work on implementing Next Best View algorithms to optimize the recognition task of UAV's along with intermittent cloud computing. This work is in progress under prof.Dr.Ryan.K.Williams

Fall 2015 **FAULT LOCATION DETECTION ON TRANSMISSION LINE** – ***Senior Year Project***.

- Deployed STFT and DWT algorithms to locate fault on transmission Line in SMART GRID metering. Its implementation was carried out through DAQ using LabView interface.
- **PUBLICATION:** Paper titled **'Fault distance Identification in transmission line using STFT Algorithm'** published in the proceedings of IEEE International Conference on Computer Communication and Informatics

Jan 2015 **WIRELESS SAFETY SYSTEMS IN TRAINS** ***–Presented for semi finals Texas Innovation Challenge***.

- Developed a safety system using Beaglebone black and MSP430. Locating and communication was implemented with GPS and GSM modules.

Fall 2014 **COPY CAT** – ***Presented for finals in a Technical fest at National Institute of Technology(India)***.

- A Line follower Robot with colour sensing, object detection ability and maze following skills built on MSP430 Launchpad that communicates optimized path calculated using Brute Force Algorithm to a Blind Bot through CC110L RF booster pack. Used Energia software.

Other skills

Memberships IEEE-IES [2015-Present], Official Member of TOASTMASTERS
Leadership OFFICE BEARER SAE[2013-2015], SECRETARY of SRISHTI-Literary Club of Amrita
Social Activity Was ED-Support Volunteer at **MAKE A DIFFERENCE** organization tutoring Institutionalized Children

Organizing	Technical Team Leader for event BLAZINGA a microcontroller based event conducted as part of Amrita Tech Fest
Communication	WINNER of AMRITA BEST SPEAKER AWARD and REGIONAL FINALIST in ICTACT YOUTH TALK