NITIN KESAVAN NAIR

EDUCATION

VIRGINIA TECH
MS Computer Engineering
Blacksburg, Virginia, U.S.A
Expected Grad. 2020
GPA: 3.74

SASTRA UNIVERSITY
B.Tech Electronics and Communication
Thanjavur, Tamil Nadu, India
Grad. May 2017
CGPA: 7.48444 (First Class)

BHAVANS RAJAJI VIDYASHRAM
Senior School Certificate Examination (CBSE)
Chennai, Tamil Nadu, India
Grad. March 2013
Grade: 92%

INDIAN SCHOOL MUSCAT
Secondary School Certificate Examination (CBSE)
Muscat, Sultanate of Oman
Grad. May 2011
CGPA: 9.6

COURSEWORK

Computer Vision
Social Computing
Advanced Machine Learning
Autonomous Coordination
Deep Learning
Paradigms for Bioinformatics

SKILLS

PROGRAMMING

Over 8000 lines:
Python • Matlab • C++ • C • LaTeX
Over 2000 lines:
NodeJS • Assembly • Java
Verilog • VHDL • Bluespec
Familiar:
MySQL • Shell • Labview

TOOLS

OpenCV • Tensorflow • Keras • Dlib

CO-CURRICULAR

• Part of the Research in Autonomous Vehicles group in SASTRA University.
• Won various quizzing and other technical events in festivals like Sankalp, an intra-collegiate technical festival hosted by SEEE, SASTRA University.

EXTRACURRICULAR

• Core member of the University Theatre team *"The Studio"*.
• Represented the University and have won various awards like *"Best Play"*, *"Best Director"* and *"Best Actor"* numerous times at various intra-university cultural festivals and various inter-university cultural fests.
• Part of KS Upahaar, a social initiative to raise funds through arts which is directly utilized in providing education essentials in schools in rural India.

CONTACT

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LinkedIn:// **nitinnairk**

EXPERIENCE

VIRGINIA TECH | Graduate Research Assistant
August 2018 – Present | Blacksburg, Virginia

- Working on building deep learning models for 'omic studies under the supervision of Dr. Frank Aylward.
- Built a deep learning sequential model to identify RNA polymerase from nucleotide sequences.
- Working on applying state-of-the-art language modelling techniques to genomic sequences.

VIRGINIA TECH | Graduate Teaching Assistant
January 2019 – May 2019 | Blacksburg, Virginia

- Worked as the GTA for "ECE 2574: Data Structures and Algorithms" conducted by Dr Yaling Yang.

VIRGINIA TECH | Lab Technician
December 2018 – February 2019 | Blacksburg, Virginia

- Built a heterogeneous sensor module to detect and characterize packages in a conveyor belt as part of work done in Computational Multiphysics Systems Laboratory under the supervision of Dr. Tomonari Furukawa for NEC.

VIRGINIA TECH | Member, Victor Tango, AutoDrive
November 2018 – February 2019 | Blacksburg, Virginia

- Working on building the perception modules for the AutoDrive challenge, a three-year autonomous vehicle competition to develop and demonstrate a full autonomous driving passenger vehicle.

IIIT BANGALORE | Research Associate
July 2017 – July 2018 | Bangalore, India

- Part of the Multimodal Perception Lab headed by Dr. Dinesh Babu J.
- Built a marker-less Augmented Reality project involving jewellery for which face and ear landmark detectors were built using both ensemble of regression trees and convolutional pose machines.
- Designed and built an initial framework for a socially aware virtual language tutor.
- Worked towards improving the various functions of the virtual agent including speech synthesis and recognition, language understanding, attention and intention detection and estimation etc.
- Designed a sensor based action recognition network using TCN.
- Built a sequential model which can estimate engagement of students in the wild.

AMERICAN MEGATRENDS | Project Associate
December 2016 – March 2017 | Chennai, India

- Part of the Research and Development team in the IoT division of AMI. Acquired practical know-how about the IoT domain while working towards the final year thesis *"Kalman Filter assisted Indoor Positioning using Bluetooth LE."*
- Was given an overview about Apache Kafka and Apache Spark which was used to ingest data generated by the IoT devices along with the know-how to write Linux kernel module and device driver.

IIT GUWAHATI | Indian Academy of Science Summer Research Fellow
May 2016 – July 2016 | Guwahati, India

- Under the supervision of Dr. Ashish Anand at IIT Guwahati, I worked on two projects namely *"Retrofitting Word Vector to Multiple Semantic Lexicon"* and *"Evaluation of Relation Extraction using Distant Supervision"*

PHILIPS HEALTHCARE | Summer Intern
June 2015 | Chennai, India

- Acquired both theoretical and practical knowledge on various Medical diagnostic imaging systems with the help of individual product experts as well as site visits to various hospitals.

AWARDS

2016 Indian Academy of Science Summer Research Fellowship

PUBLICATION

iWOAR '18 Human Activity Recognition Using Temporal Convolutional Network
ICMI '18 Predicting Engagement Intensity in the Wild Using Temporal Convolutional Network (EmotiW Challenge Paper)

REFERENCES

Dr. Frank Aylward — Assistant Professor of Biological Sciences, Virginia Tech
Dr. Dinesh Babu Jayagopi — Assistant Professor, IIIT Bangalore