

JAYANTH SHREEKUMAR

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EDUCATION

Master of Science in Electrical and Computer Engineering

UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA)

SEP 2021 - EXPECTED, JUL 2023

LOS ANGELES, UNITED STATES

- Specialization in Signals and Systems. CGPA : 4.0 / 4.0. 📄 [Transcript](#)

Bachelor of Technology in Electronics and Communication Engineering

PES UNIVERSITY

AUG 2016 - JUL 2020

BANGALORE, INDIA

- Specialization in Signal Processing. CGPA : 9.41 / 10.0. 📄 [Transcript](#)
- Minor in Computer Science.
- Received Prof. CNR Rao Merit Scholarship for 6 semesters.

EXPERIENCE

Perfios Software Solutions Private Limited

JAN 2021 - JUL 2021

TECHNICAL INTERN - DATA SCIENCE

BANGALORE, INDIA

- Leading FinTech company funded by Warburg Pincus and Bessemer Venture Partners.
- Worked on table structure recognition of bank statements using graph neural networks in TensorFlow, Python.
- Developed a sampling algorithm for efficient training of deep neural networks on table documents.
- Utilized Tesseract OCR for text recognition. Created code to build a pipeline to test the network on new images and to obtain evaluation metrics for quantifying its performance.

TECHNICAL SKILLS

Programming Languages : Python • JavaScript • C++ • C

Data Science : Numpy • PyTorch • Tensorflow • Keras • OpenCV

Web Dev. : HTML • CSS • NodeJS • ExpressJS • EJS • ReactJS

Tools : Git • Matlab • Arduino IDE • ~~W~~TeX

Databases : SQL • MongoDB • Mongoose

PUBLICATIONS

- J. Shreekumar, G. K. Shet, V. P. N, P. S. J and N. Krupa, "Improved Viseme Recognition using Generative Adversarial Networks," 2020 IEEE REGION 10 CONFERENCE (TENCON), Osaka, Japan, 2020, pp. 1118-1123, DOI:[10.1109/TENCON50793.2020.9293784](https://doi.org/10.1109/TENCON50793.2020.9293784)

PROJECTS

Image Colorization

NOV 2021

PERSONAL PROJECT • [CODE](#)

LOS ANGELES, CALIFORNIA

- Built four different image colorization models using ResNet, U-Net, and Generative Adversarial Networks in PyTorch.
- Implemented a data loader with appropriate transforms, and an inference script to test on grayscale images.

Bachelor's Project, PES University - Visual Speech Recognition

AUG 2019 - JUL 2020

ADVISOR: [PROF. NIRANJANA KRUPA](#) • [REPORT](#)

BANGALORE, INDIA

- Focused on improving viseme recognition by utilizing generative adversarial networks as a tool for data augmentation.
- Utilized VGG-16 convolutional neural network for classification. Achieved a maximum increase in viseme recognition accuracy of 3.695% over a baseline accuracy by using images generated by the PGGAN for data augmentation.
- As a part of the project, performed data pre-processing, and implemented evaluation metrics.
- Presented the paper "Improved Viseme Recognition using Generative Adversarial Networks" at IEEE Tencon 2020.
- Code written exclusively in Python. Some of the libraries used were Tensorflow, Keras, and OpenCV.

Summer Internship, Indian Institute of Science - Hearing Aid Device

MAY 2019 - JUL 2019

ADVISOR: [PROF. M M NAYAK](#)

BANGALORE, INDIA

- Built a prototype of a hearing aid device using the Teensy 3.6 microcontroller and Arduino IDE.
- The prototype was a working model consisting of a microcontroller, a microphone, a DC block capacitor, and a speaker.
- Implemented amplification, filtering, noise reduction, and adaptive gain in speech signals to improve hearing in users.

RELEVANT COURSEWORK

- Introduction to Computer Vision
- Matrix Analysis for Scientists and Engineers
- Digital Image Processing
- Machine Learning
- Data Structures and Algorithms
- Artificial Neural Networks