

JAYANTH SHREEKUMAR

EDUCATION

Master of Science in Electrical and Computer Engineering

UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA)

- Specialization in Signals and Systems. CGPA : **3.95 / 4.0**. 📄 [Transcript](#)

SEP 2021 - EXPECTED, JUL 2023

LOS ANGELES, UNITED STATES

Bachelor of Technology in Electronics and Communication Engineering

PES UNIVERSITY

- Specialization in Signal Processing. CGPA : **9.41 / 10.0**. 📄 [Transcript](#)
- Minor in Computer Science.

AUG 2016 - JUL 2020

BANGALORE, INDIA

EXPERIENCE

University of California, Los Angeles (UCLA)

GRADUATE RESEARCH ASSISTANT

- Research assistant working in Prof. Dan Ruan's lab.
- Currently working on image registration of MRI images using deep learning.

OCT 2022 - PRESENT

LOS ANGELES, CA

Advanced Micro Devices (AMD)

SUMMER INTERN

- Worked on benchmarking 3rd generation AMD EPYC server processors for machine learning workloads.
- Performed tuning & optimization, leading to a **performance increase of 10%**, while simultaneously decreasing system cost.
- Worked on TPCx-AI single node benchmark and MLPerf DLRM Recommendation Inference benchmark.

JUN 2022 - SEP 2022

AUSTIN, TX

University of California, Los Angeles (UCLA)

GRADUATE TEACHING ASSISTANT

- Teaching assistant for the class **101B - Electromagnetic Waves**. Handled 2 discussion sections.
- Responsible for discussions, holding office hours, creating examination questions, and proctoring and grading examinations.

APR 2022 - JUN 2022

LOS ANGELES, CA

Perfios Software Solutions Private Limited

TECHNICAL INTERN - DATA SCIENCE

- 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 neural networks on tables. 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.

JAN 2021 - JUL 2021

BANGALORE, INDIA

Summer Internship, Indian Institute of Science - CeNSE

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

- Built a prototype of a **hearing aid device** using the Teensy 3.6 microcontroller and Arduino IDE.
- Implemented amplification, filtering, noise reduction, and adaptive gain in speech signals to improve hearing in users.

MAY 2019 - JUL 2019

BANGALORE, INDIA

TECHNICAL SKILLS

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

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

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

Tools : Git • Matlab • Arduino IDE • \LaTeX

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

PERSONAL PROJECT • [📄 CODE](#)

- 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.

NOV 2021

LOS ANGELES, CALIFORNIA

Bachelor's Project, PES University - Visual Speech Recognition

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

- 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.
- Presented the paper "Improved Viseme Recognition using Generative Adversarial Networks" at IEEE Tencon 2020.

AUG 2019 - JUL 2020

BANGALORE, INDIA

RELEVANT COURSEWORK

- Introduction to Computer Vision
- Matrix Analysis for Scientists and Engineers
- Neural Signal Processing
- Large-Scale Data Mining
- Neural Networks and Deep Learning
- Machine Learning