Sathyaprakash Narayanan

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Education

• University of California, Santa Cruz

Dec 2022- June 2024

Masters in Electrical and Computer Engineering

Anna University; RMD Engineering College, Chennai

June 2014- April 2018

Bachelors of Engineering, Electronics, and Communication

Work Experience

• Machine Learning Scientist II

Oct 2021- April 2022

Lytx Inc.

Bangalore, Karnataka, India

- End-End Development of Compute-Friendly ADAS based ML/DL models
- Research and Development experience in the following areas:
 - \ast Model compression and NAS techniques
 - * Knowledge distillation, Pruning, Quantization
 - * Optimizing and deploying inference on various embedded processors
 - * Signal Processing on mmmwave Radars

• Research Associate

Dec 2017- Sep 2021

NeuRonICS Lab, DESE Department, Indian Institute of Science, Bangalore

- Real-Time Object Detection and Localization in Compressive Sensing Video

ICIP 2021

- N-HAR: neuromorphic event-based human activity recognition system

ISCAS 2019 ISCAS 2019

- Proto-object based visual saliency model on NVIDIA Jetson TX - n-EAR: Neuromorphic Ego Motion - Vehicle Activity Recognition

US Patent App. 17/377761

- System and Method for exhale controlled AAC device for IOT

IN Patent App. 201641044496

Open Source Projects

sconce: Model Compression and Deployment Package

Author

- Built a one-stop compression package, that supports:
 - * Pruning, Quantization and NAS
 - * Deployment in ONNX, C/CUDA code generation
 - * Sparsity Engine and Support for Inference level Optimizations

• snntorch: Gradient Based Spiking Neural Networks

Contributor

- Built Pruners for Spiking Neural Networks
- Built support for model compression for snn models on sconce

Technical Skills and Interests

LLM/Fine-Tuning, Machine Learning, Deep Learning, Computer Vision, Model Compression, Signal Processing, Pruning, Quantization, MLOps/AIOps, Git, MATLAB, Python, C/C++, CUDA

Positions of Responsibility

-Reviewer

- *WACV 2019, 2020, 2022, 2023, 2024
- *TPAMI IEEE Transactions on Pattern Analysis and Machine Intelligence