Sathyaprakash Narayanan

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https://satabios.github.io/

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:
    * 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**
  – Proto-object based visual saliency model on NVIDIA Jetson TX **ISCAS 2019**
  – 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, 2025
  * TPAMI IEEE Transactions on Pattern Analysis and Machine Intelligence