Vishal Nagarajan

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EDUCATION

University of California, San Diego   San Diego, United States
M.S. Computer Science   Sep 2022 – Jun 2024 (Expected)

Sri Sivasubramaniya Nadar College of Engineering   Chennai, India
B.E. Computer Science and Engineering, GPA: 8.55/10.00   Aug 2018 – May 2022

EXPERIENCE

Solarillion Foundation   Chennai, India
Teaching Assistant and Research Assistant   Jun 2020 – Jun 2022
– Guided 5 students through orientation assignment phase in Python and basics of machine learning.
– Worked in an ML research group to detect atrial and ventricular fibrillation using scalable machine learning.

PUBLICATIONS

- **Lead author** - Scalable machine learning architecture for neonatal seizure detection on ultra-edge devices   Feb 2022
- End-to-end optimized arrhythmia detection pipeline using machine learning for ultra-edge devices   Dec 2021

OPEN SOURCE CONTRIBUTION

PySigPro: A one-stop open-source Python package for signal processing and feature extraction maintained interactively on GitHub. To be published as PyPI distribution.

SKILLS

- **Machine Learning:** scikit-learn, Keras, TensorFlow, PyTorch
- **Frameworks & Libraries:** Numpy, Pandas, Matplotlib, Git, Angular, ReactJS, MongoDB
- **Languages:** Python, C, C++, Java, HTML, JavaScript, SQL, TypeScript
- **Hardware:** Raspberry Pi
- **Linux Server Admin:** Managed dependencies for ML compute server and workplace automations

SELECTED PROJECTS [1]

- **TechWorld** (Javascript, 2021)
  E-commerce web application based on MERN Stack
  Functionalities enable users to purchase and admin to add products. [code-link]
- **Flight Delay Prediction** (Python, 2020)
  Machine Learning model
  Two-staged pipeline to evaluate the delay of flights in minutes. [code-link]
- **Bradycardia Prediction** (Python, 2020)
  Neural Networks for prediction
  Multiple neural networks including Encoder and InceptionTime – trained and tested on popular Physionet Bradycardia dataset. [code-link]

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[1]See full list of research paper implementation and projects on GitHub