

Sathiyarayanan Palani

Senior Software Engineer

Contact



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[Sathiyarayanan Palani \(LinkedIn\)](#)

Professional Skills

Languages

- C, C++, Python, Shell & Batch basics

Operating Systems

- Linux, Windows

Communication Protocols

- UART, I2C, SPI

Networking Protocols

- TCP/IP, UDP, HTTP, MQTT, SQL, Postgres, ELK, PromQL, OTLP, WebRTC, Websockets, SMTP

Web Technologies

- Fast API, Flask, React UI, next.js, shadcn/ui basics
- [LogExAnWebApp \(Fast API, Flask\)](#)
- [ScEqAnWebApp \(Fast API, React UI\)](#)

Machine Learning

- OpenCV, Tensorflow, Pytorch, Keras, OpenVINO, VGG16-senet50-TL
- [MLP-Demo](#)
- [Senet50-TL](#)
- [Mask-RCNN-TL](#)

Tools & Libraries

- Gtest, FFF, pytest, pandas, numpy, polars, matplotlib, plotly, dash, paramiko, SCP, pyYaml, rich, Lark-Parser, MySQL, SQLAlchemy, OpenCV, Tkinter, DiskCache, Multiprocessing, ELK Stack, promQL, Grafana, apscheduler, aiortc, asyncio, websockets.

DevOps & Deployment

- Jenkins, Github Actions & self-hosted runners
- GCP (Credential API's, Artifact registry, Cloud run), AWS Basics (EKS), Kubernetes, Docker, Ansible basics.
- [ansible-LogExAnWebApp-deployment](#)

IaC, K8s, Helm & GCP

- [Code2Cloud-Terraform-Helm](#)

SCM

- Git, Github, Gitlab

Professional Overview

Solutions Architect with **8+ years of experience in Python development** for infrastructure tooling, and scalable software design.

Published 6 PyPI packages with over 86k+ lifetime downloads, used by developers worldwide.

Spent 4.5 years leading end-to-end architecture, development, and mentorship as Founding Engineer in a fast-paced startup environment.

A self-directed problem solver with a neurodivergent perspective, known for consistently owning & delivering reusable, production-grade tools and championing engineering best practices across teams.

Notable Highlights

Assistive Fact-Checking Tool using Gemini

- Demonstration Available via [Kaggle](#) & Youtube [[Users](#)] & [[Fact-Checkers](#)]
- The tool developed can be used to quantify media literacy over time.

EBDT - submission to ETTC'25

Intel SRR, Bangalore

Nov 2023 - Present

- Built EBDT from Proposal to Production as PoC, submitted as paper to [European Test & Telemetry Conference '25](#). (declined as out of scope)

86K+ life time downloads

From 6 OSS PyPI Packages published

Jan 2022 - Present

- Available via [PyPI](#) & [Github](#)

4.5 Years as Founding Engineer

elektron Technologies, Chennai

Jul 2017 - Dec 2021

- Worked on Proof-Of-Concept development & Mentoring to create Measurable impact that enhances customer delight.

Experience (8+ years)

Telemetry Software Data Engineer

Intel SRR, Bangalore

Nov 2023 - Present

- ETL-Pipeline - Built Data harvesting pipelines for bulk insertion to elastic.
- Telemetry-UI - Built Scalable Web UI framework (with MVC & Dash UI).
- QTOPP - Mentored juniors in building Queued Tasks on Process Pools that sends automated statistical calculation results via SMTP.
- EBDT - Built an ecosystem of tools for data collection from edge to cloud.

Semiconductor S/W Product Development Engineer

UST Global, Bangalore

May 2022 - Oct 2023

- Owning test & telemetry code reviews, release process & guiding juniors.
- Implementing Serial-Over-Lan with IPMI & monitoring threads for auto-retrying ssh connections during target reboot.
- Scripts to upload redfish data from OpenBmc OData rest api to influx db.

OSS PyPI Package Dev as Volunteer, Cuddalore (Jan 2022 - Apr 2022)

Senior Engineer at Ilektron tech, Chennai (Oct 2018 - Dec 2021)

Software Validation Engineer

Mercedes Benz R&D ADAS, Bangalore (as external) Apr 2019 - Dec 2021

- Written python scripts on HIL-scenarios for validation of ADAS signals.
- HIL process Automation done via SSH, paramiko & SCP based scripts.
- Design & development of Test case generation scripts with pandas data frames as pre-HIL execution task based on test configuration.
- Runtime dynamic analysis of ADAS utility modules in c using ASTREE.
- Unit testing, L2 testing done using C++ Google test framework on ADAS.

Python Developer

SAFRAN Aerospace, Bangalore (as external)

Oct 2018 - Mar 2019

- Responsible for Multi-Display Broadcast over local Network using TCP/IP.
- Scripting done for fusion of raw data from sensor grid control units to display them together for holistic understanding of the system.
- Developed event classification algo based on volumetric data differences.

Embedded Software Developer

elektron Technologies, Chennai

Jul 2017 - Sep 2018

- Improving Embedded Software unit and functional Testing of internal security products with adoption of industry best practices.
- Development of semi-automated hardware testing platform for Renesas Microcontrollers using Iron-python Renesas APIs & JTAG debuggers.

Core Strengths

- Analytical Thinking
- Problem Solving
- Pattern Recognition
- Systemic understanding
- Emotionally Resilient
- Outcome Oriented

Education

●	BE - EEE <i>AIHT, (Anna Univ. Affiliated)</i>	2013 - 2017
	<ul style="list-style-type: none">• Graduated Bachelors in Electrical & Electronics Engineering with a first class.• Project : Automatic Attendance System using Face Recognition with OpenCV and Raspberry Pi.	
●	HSC <i>ARLM Matric HSS, Cuddalore</i>	2012 - 2013
	<ul style="list-style-type: none">• Completed with 85%	
●	SSLC <i>SRV Matric School, Trichy</i>	2010 - 2011
	<ul style="list-style-type: none">• Completed with 85%	