

# Sathiyarayanan Palani

Solutions Architect

## 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, Elastic, Prometheus, OTLP Basics

### 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](#)

### Tools & Libraries

- Gtest, FFF, pytest, pandas, numpy, polars, matplotlib, plotly, dash, paramiko, SCP, pyYaml, rich, Lark-Parser, MySQL, SQLAlchemy, OpenCV, Tkinter, DiskCache, Multiprocessing, Elasticsearch, Prometheus\_api\_client, Kibana, Grafana

### 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](#)

### Computational Art

- [Computational Art](#)

### 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 76k+ 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)

### 76K+ 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 Elektron 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

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