

# 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**  
*lelektron 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 lelektron 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**  
*lelektron 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

*AIHT, ( Anna Univ. Affiliated )*

2013 - 2017

- Graduated Bachelors in Electrical & Electronics Engineering with a first class.
- Project : Automatic Attendance System using Face Recognition with OpenCV and Raspberry Pi.

### HSC

*ARLM Matric HSS, Cuddalore*

2012 - 2013

### SSLC

*SRV Matric School, Trichy*

2010 - 2011

- Completed with 85%

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