



Sathiyarayanan  
Palani

Senior Software Engineer

## Contact



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## About Me

Senior Software Engineer with **~8 years of experience** in Python development, software design, and automation.

**Published 6+ PyPI packages with over 76,000+ lifetime downloads**, solving real-world problems in embedded systems testing, CLI tooling, template engines, and scientific analysis.

Proven track record of building reusable, production-grade libraries adopted by developers globally.

**Neurodivergent Engineer with adaptive learning strengths and independent problem-solving mindset.**

## Skills

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



## Education

### BE - Electrical & Electronics Engineering

AIHT, Affiliated to Anna University

2013 - 2017

- Graduated with a **first class**,
- Final Year project: Automatic Attendance System using Face Recognition with OpenCV and Raspberry Pi

### HSC

ARLM Matric School, Cuddalore

2012 - 2013

- Completed with 85%

### SSLC

SRV Matric School, Trichy

2011 - 2012

- Completed with 85%



## 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).
- EBDT - Built an ecosystem of tools for data collection from edge to cloud.
- QTOPP - Queued Tasks on Process Pools sends automated statistics calculation results via SMTP.

### Semiconductor S/W Product Development Engineer

UST Global, Bangalore

May 2022 - Oct 2023

- Owning test automation code feature addition, improvements & release.
- Serial-Over-Lan with IPMI & monitoring threads for auto-retrying ssh connections during reboot.
- Scripts to upload redfish data from OpenBmc OData rest api to influx db.

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

### Software Validation Engineer

Mercedes Benz 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 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 Google test framework in c++ on ADAS.

### Python Developer

SAFRAN Aerospace, Bangalore (as external)

Oct 2018 - Mar 2019

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

### Embedded Software Developer

Ielektron Technologies, Chennai

Oct 2018 - Mar 2019

- Responsible for Embedded Software unit and functional Testing of internal security products.
- Responsible for development of semi-automated hardware testing platform for Renesas Microcontrollers using Iron-python Renesas APIs

# 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

- **Testing:** Gtest, FFF, pytest
- **Data Analysis:** pandas, numpy, polars
- **Visualization:** matplotlib, plotly, dash
- **Scripting/Utilities:** paramiko, SCP, pyYaml, rich, lark – parser
- **Databases:** MySQL, sqlalchemy
- **pip libs:** OpenCV, Tkinter, diskcache, multiprocessing,
- **Data exporters:** 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

## PyPI Projects & Stats Overview

76,000+ total lifetime downloads across 6 published packages

All packages available via [PyPI](#) and [GitHub](#).

[LogExAn](#)

( [15k](#) downloads )

[ScEqAn](#)

( [14k](#) downloads )

[py4cli](#)

( [9k](#) downloads )

[py4mbd](#)

( [650](#) downloads )




[Idaikuri](#)

( [21k](#) downloads )

[Thodarkuri](#)

( [17k](#) downloads )

## Notable Highlights

-  Surpassed **76k+ downloads** organically via GitHub and PyPI
-  **Neurodivergent developer** — rapid adaptive learning, pattern-based systems thinker, independent delivery from concept to production.
-  Currently working on community-based-research-initiative **to quantify & improve media literacy** of common public with motive towards empowering fact-checking committees.( [Phylum-Tardigrada](#) )