Sathiyanarayanan Palani

Solutions Architect

Contact

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📍 Sathiyanarayanan 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 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
Ielektron 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 Ielektron 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
Ielektron 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
2013 - 2017

AIHT, (Anna Univ. Affiliated)

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

HSC
2012 - 2013

ARLM Matric HSS, Cuddalore

- Completed with 85%

SSLC
2010 - 2011

SRV Matric School, Trichy

- Completed with 85%