



Sathiyarayanan
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Solutions Architect

Contact



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About Me

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.

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

2010 - 2011

- 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).
- 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 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.

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

Notable Highlights

- **Worked 4.5 years driving significant tech decisions, as Founding Engineer** to create measurable Impact that enhances customer delight.
- **Neurodivergent developer** — rapid adaptive learning, pattern-based systems thinker, independent delivery from concept to production.
- EBDT - **Built an ecosystem of tools for data collection from edge to cloud**, submitted as a proposal to [European Test & Telemetry Conference '25](#). (declined as out of scope)
- Currently **working on community-based-research-initiative to quantify & improve media literacy** of common public for empowering fact-checking committees. ([Phylum-Tardigrada](#))
- **76,000+ total lifetime downloads across 6 published packages.** Available via [PyPI](#) and [GitHub](#).

[LogExAn](#)
([16k](#) downloads)

[ScEqAn](#)
([14k](#) downloads)

[py4cli](#)
([9k](#) downloads)

[py4mbd](#)
([650](#) downloads)

[Idaikuri](#)
([21k](#) downloads)

[Thodarkuri](#)
([17k](#) downloads)