Gaurav Rai

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📍 Pune, Maharashtra, India

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OPEN SOURCE CONTRIBUTIONS

- Alien-SwaggerUI
- Mojo-XMLRPC
- Mojolicious-Plugin-SwaggerUI
- Sophos related project at - github.com/sophoslabs/

SKILLS

Python, Perl, Go, Shell/Bash scripting

RESTful webservices, Swagger (**OpenAPI**), **GraphQL**, **Microservice** Architecture

HTML5, CSS, JavaScript and **React.js**
Data visualization using JavaScript (**amCharts, chart.js** and **plotly**)

Operating Systems: **Linux** and **Windows**.

SQL and NoSQL Database: **Sybase** ASE/IQ, Intersystem Cache, Redis, **PostgreSQL**, **Couch**DB, **Mongo**DB, **Maria/MySQL**, ES

DevOps/Cloud technologies: **AWS (Kinesis, S3, Redshift etc.)**, GCP, **K8s, Helm Charts,** CI/CD, **Argo** CD

Web Servers: **Apache2**, **Nginx**

🎯 CAREER OBJECTIVE

Seasoned **back-end developer** with full-stack exposure having over **13** years of IT industry experience, specializing in **cloud-native** solutions, **security** services, and **automation**.

Experienced tech lead with a proven track record of delivering beneficial, cost-effective, and efficient projects. Quick learner with a positive outlook, adept at transforming ideas into actionable plans. Committed to driving innovation and efficiency to meet organizational objectives.

💼 WORK HISTORY

MSCI Inc. (formerly Morgan Stanley Capital International)

VP, Pune / May 2025 – Current

- Contributing to MSCI's ESG Climate **Geospatial** Platform by designing scalable microservices in FastAPI to ingest, cleanse, and deduplicate vendor-sourced asset data for climate product modeling.
- Worked on a **medallion** architecture (bronze-silver-gold layers) to streamline data processing for institutional investors' ESG decision-making.
- Leveraging GCP (BigQuery) and Kubernetes in a cloud-native environment.

Forcepoint Software India Private Limited

Senior Software Engineer, Bengaluru (Remote) / Aug 2022 – Jan 2025

- Developed and maintained the cloud-native Secure Service Edge (**SSE**), also known as **FONE** (SaaS), integrating critical security services such as Secure Web Gateway (**SWG**), Cloud Access Security Broker (**CASB**), Zero Trust Network Access (**ZTNA**) and Data Loss Prevention (**DLP**).
- Contributed to logging and data analytics team, tracking incoming traffic and generating front-end analytics using Django and React.
- As part of the **CASB API** scanning team, safeguarded data at rest by configuring multiple cloud apps for offline cloud application scanning.
- Led the migration of **microservices** to **Kubernetes** (EKS), streamlining containerized deployments with Docker & Helm, and enhancing scalability and efficiency.

McAfee Enterprise / Trellix

Software Development Engineer, Bengaluru / June 2021 – Aug 2022

- Contributed in the on-prem Data Loss Prevention (**DLP**) module to prevent data loss via shared channels, configured through the e-Policy Orchestrator (**ePO**) web interface.
- Developed a Python framework (**pytest**, pywinauto, AutoIt) to simulate DLP use cases.
- Designed and enhanced an automation web framework for testing the ePO web portal using Microsoft **Playwright**.
- Led the design and development of the Nova web portal for DLP tasks, including test initiation and providing trending graphs and historical records (React.js, Django).

Containerization: **Docker**, **Docker Compose**

Automation testing lib/tools: **Pytest,** MS **Playwright,** Selenium, **Robot** Framework

Miscellaneous: **uWSGI, Gunicorn, ASGI, OS Query, Jenkins,** Apache **Thrift,** Apache **Zookeeper,** Apache **Spark**, **RabbitMQ,** JWT**,** OAuth

Version Control: **Git, SVN**, Mercurial Hg, Perforce

Web Frameworks: **Django, Flask, Mojolicious, Catalyst, FastAPI**

Engineering tools/applications: wiki, confluence, JIRA

Methodologies: Waterfall, **Agile (Scrum & Kanban)** & **SAFe** Agile, SDLC, Test Driven Development (**TDD**)

AWARDS

Hackathon
Forcepoint 2022

Kudos
McAfee 2021, 2022

Hackathon
Sophos 2019

Spot Award and Kudos
Sophos 2018, 2019

Start Partner
Credit-Suisse 2015

Guiding Star
Cognizant 2015

EDUCATION

Bachelor of Technology in Computer Science and Engineering

Uttar Pradesh Technical University, Ghaziabad, India

Aug 2007 – June 2011

F5 Networks

Software Engineer III, Hyderabad / May 2020 – June 2021

- Contributed to the Web Application Firewall (**WAF**) module of Application Security Manager (**ASM**) on the F5 **BigIP** platform, which includes security, remote access, and traffic management.
- Managed policy configurations in declarative format (JSON schema) for integration with **Nginx** App Protect.
- Implemented test scenarios using the Python **Robot** framework.

Sophos Technologies

Senior Software Engineer, Ahmedabad / Nov 2017 – May 2020

- Led the Falcon (**AVTest** Simulator) development initiative as Subject Matter Expert and primary POC for project management (Mojolicious, React.js, AWS).
- Falcon replicates and automates tests by third-party companies that rate and assess security suites and antivirus software, including:
    - Detection Test (Zoo Test for malicious samples/files)
    - Real World Test (Malicious URL test, Dynamic Detection Test)
    - Dynamic False Positive and Performance Test
- Enhanced application concurrency with threading and multiprocessing optimizing performance and resource utilization.
- Improved the **EDR** Test Framework, Magneto (Django, AWS).
- Conducted malware analysis using **OS Query** with Apache **Kafka** to identify unusual endpoint behaviour.
- Developed a web UI (React.js) with historical records, trending graphs, and stats for all projects, along with a REST API based on the **OpenAPI** (Swagger) Specification.

Pramati Technologies

Senior Development Engineer, Hyderabad / Apr 2016 – Mar 2017

- Contributed to DoctorBase, a **Kareo** practice management platform built with Python, Modern Perl (Catalyst), and AWS.
- It provides cloud-based practice management services for physicians, including appointment scheduling, reminders, messaging, reporting, reviews, and forums.
- Enabled patients to rate doctors based on their visit experiences and ask health-related questions.

Cognizant Technology Solutions / Credit-Suisse

Associate, Pune / Dec 2011 – Mar 2016 & May 2017 – Nov 2017

- Worked on **AGORA**, an Order and Quote Management system for Credit-Suisse, developing intraday and end-of-day loaders for daily **ETL** data transfers.
- Created data solutions tools like the Usage Analysis Tool and Log Scrapper to automatically analyse production logs and produce insightful information.
- Also, worked in Electronic Trading Technology (Cash Equities) team.
- Ensured quick turnaround, troubleshooting and proactive action on critical alerts in major ETT components: Mercury (Exchange Connectivity Platform), GCE (Global Compliance Engine/Limit Check), and Pi (Market Data).