

CONTACT

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PROFESSIONAL SUMMARY

Highly analytical and solution-focused Technology Lead and Senior Python Developer with extensive expertise engineering scalable enterprise microservices and next-generation telecom network orchestration solutions. Proven track record designing cloud-native architectures, automating complex product integrations, and containerizing critical workflows for production readiness. Adept at translating high-level business objectives into high performance, robust code infrastructures.

SKILLS

- Python
- Ciena Blue planet
- FastAPI
- Docker
- REST APIs
- Microservices Architecture
- Git
- Agile/Scrum
- Camunda BPMN
- AIOps/ML Integration

EXPERIENCE

Dec 2021 - Till Date

- **Technology Lead**
Infosys Limited
As a Technology Lead, I drive the technical design, development, and implementation of highly scalable Python-based microservices and network orchestration solutions. I bridge the gap between complex software engineering and telecom infrastructure, specializing in the Ciena Blue Planet ecosystem to modernize enterprise network services through AI-driven automation.

Key Responsibilities & Achievements
 - AI/AIOps Innovation: Integrating AI/ML workflows into existing network orchestration pipelines to enhance anomaly detection, predictive maintenance, and system self-healing.
 - Core Architecture & Development: Design and build robust, reusable Python microservices to handle high-throughput network orchestration workflows, ensuring system reliability and optimal performance.
 - Telecom Automation & Orchestration: Serve as a subject matter expert in Ciena Blue Planet service template development, leading critical integrations such as the Operator Connect UK (OCUK) and Digital Voice (DV) product frameworks.
 - Cloud-Native Engineering: Architect containerized deployment workflows using Docker and Kubernetes, driving the migration of local developments into production-ready, scalable pod architectures.
 - System Efficiency & Productivity: Spearhead automation initiatives combining Ciena frameworks and custom Python/AI tooling, significantly reducing manual provisioning times and accelerating product delivery cycles.
 - Technical Leadership: Guide cross-functional development teams, conduct code reviews to enforce software design patterns, and collaborate with stakeholders to translate complex business requirements into future-proof technical blueprints.

Environment: Python, AIOps/ML Integration, Ciena Blue Planet, Kubernetes, Docker, Microservices Architecture, FastAPI, REST APIs, Git, Agile/Scrum.

Jan 2021 - Nov 2021

- **Senior Python Developer**

FactEntry Data Solutions Private Limited

Engineered robust data extraction, transformation, and loading (ETL) systems to automate the ingestion of high-volume financial data. Focused on building scalable scraping pipelines, implementing fast search indexing, and developing internal analytics dashboards.

Key Responsibilities & Achievements

- Web Automation & Data Extraction: Built and managed complex web scraping pipelines using Selenium and BeautifulSoup to reliably extract financial data from dynamic, JavaScript-heavy institutional platforms.
- ETL Pipeline & Dashboard Development: Designed and deployed an end-to-end ETL dashboard, streamlining the data collection lifecycle and providing real-time visibility into pipeline health and data ingestion metrics.
- Polyglot Storage & Database Management: Implemented a hybrid database approach, leveraging MongoDB for flexible, unstructured document storage of raw data feeds alongside relational SQL databases for structured financial records.
- High-Performance Search Indexing: Integrated and optimized Elasticsearch to index massive financial datasets, enabling near-instantaneous search capabilities and low-latency query results across internal applications.
- Automation & Optimization: Scheduled and monitored data workflows, drastically reducing manual data entry work and ensuring the high availability of clean, validated financial intelligence.

Environment: Python, Selenium, BeautifulSoup, Elasticsearch, MongoDB, SQL, ETL Pipelines, Dashboards, Web Scraping, Data Engineering.

Jul 2017 - Mar 2020

- **Python Developer**

JP Infotech

Python Developer experienced in designing, developing, and delivering custom software solutions, backend APIs, and data-driven applications. Focused on writing clean, optimized code and transforming functional requirements into stable, high-performing software modules.

Key Responsibilities & Achievements

- Backend Development: Developed core server-side logic and functional components using Python, ensuring seamless data flow across internal applications.
- API & Databases: Built RESTful web services and integrated structured SQL/MySQL database layers, optimizing data retrieval and component compatibility.
- Automation Utilities: Created custom scripts for data parsing, basic web scraping, and file processing to automate routine tasks and maximize workflow efficiency.
- Code Optimization: Troubleshoot runtime execution errors and systematically refactored legacy modules to enhance application performance and code reusability.
- SDLC Collaboration: Participated in the full software development lifecycle, from gathering system requirements and building prototypes to writing comprehensive technical documentation.

Environment: Python, REST APIs, SQL, MySQL, Object-Oriented Programming (OOP), Git, Web Scraping, Technical Documentation.

Jan 2016 - Jun 2017

- **NS2 Developer**

JP Infotech

NS2 Developer specializing in modeling, simulating, and analyzing wired and wireless network communication protocols. Experienced in designing network topologies, evaluating routing algorithms, and processing large simulation datasets to optimize network performance.

Key Responsibilities & Achievements

- Simulation & Modeling: Developed network simulation scripts using Tcl/OTcl to model diverse topologies, traffic patterns (CBR/VBR), and routing protocols (AODV, DSR, DSDV).
- Protocol Customization: Modified backend C++ source code within the NS2 framework to implement custom network routing logic, packet structures, and behavioral protocol changes.
- Data Analysis: Authored AWK and shell scripts to parse massive trace files (.tr), extracting critical performance metrics like throughput, packet delivery ratio (PDR), and end-to-end delay.
- Performance Evaluation: Utilized visualization tools like NAM (Network Animator) and Xgraph to identify network congestion points, topological inefficiencies, and packet drop bottlenecks.
- Research & Prototyping: Translated conceptual network algorithms into executable simulation models and documented findings for technical feasibility studies.

Environment: NS2, Tcl/OTcl, C++, AWK Scripting, Shell Scripting, Linux/Ubuntu, NAM, Xgraph, Protocol Analysis.

RECENT PROJECTS

- **Operator Connect UK (OCUK)**

Client : British Telecom

Architected and developed the core automation engine responsible for onboarding UK enterprise clients onto Microsoft Teams Operator Connect. Leveraging Python microservices and the Ciena Blue Planet ecosystem, the platform bridges the gap between legacy carrier voice infrastructure and cloud collaboration tools. Personally developed the service templates for network state orchestration and integrated Microsoft's carrier APIs to automate real-time number assignment and porting. Successfully transitioned the project from a local Docker environment to a production-ready, scalable Kubernetes pod architecture.

- **Digital Voice (DV)**

Client : British Telecom

Architected and developed the automated provisioning engine for a major UK telecom modernization initiative, migrating legacy PSTN enterprise and retail customers to an All-IP Digital Voice infrastructure. Utilizing Python-based microservices and the Ciena Blue Planet ecosystem, the platform automates the end-to-end activation of Voice over Broadband (VoBB) services. Personally designed declarative service templates to handle complex network state transitions, automated edge device (CPE) configurations, and core IMS network routing. Built high-throughput transactional pipelines that eliminated manual configuration overhead, ensuring seamless service continuity and zero-downtime migrations during high-volume customer cutovers.

EDUCATION

2013

- **Pondicherry University**
Bachelor of Technology
7.2/10