DEVIKA ARUN

Python Software Engineer | Senior Software Developer

Experienced Senior Software Engineer with 6+ years of expertise in backend architecture and frontend integration with a proven track record of designing **GenAI-driven agentic systems** and AI-powered automation. Proven track record of delivering scalable, modular, and reusable solutions across cybersecurity and process optimization domains. Passionate about driving technical excellence, mentoring teams, and integrating data science into operational systems. Experienced in managing the full SDLC—from conceptual system design to **CI/CD automation**. Proficient in rapid prototyping and building scalable microservices on **Azure, AWS, and GCP**.

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WORK EXPERIENCES

o Senior Software Engineer
Independent Consultant
Architected and deployed a production-grade MERN stack web application from end-to-end using Docker, featuring a GenAI-powered assistant built with Python and Fast API that leverages Gemini Flash to provide instant, automated responses to high-volume user resource inquiries.

11/2025-Present   *Netherlands*

Achievements/Tasks

- Architected a scalable **full-stack web application** using the **MERN stack** (MongoDB, Express.js, React, Node.js) to provide a seamless digital interface for complex resource management.
- Engineered an **AI-powered Assistant** using **Python, Fast API, and OpenAI,** leveraging **Google AI Studio (Gemini Flash)** to provide instant, context-aware responses to user inquiries.
- Developed sophisticated **prompt engineering** strategies to allow the GenAI chatbot to interpret user intent and return filtered results based on high-level conceptual parameters.
- Containerized the entire application ecosystem using **Docker and Docker Compose**, ensuring consistent deployment of frontend, backend, and database services.
- Implemented secure authentication and session management using **JSON Web Tokens (JWT)** and **bcryptjs** for robust password hashing.
- Optimized frontend performance and developer experience by utilizing **Vite** and **Tailwind CSS** for a responsive, utility-first design.
- Designed a **RESTful API** architecture supporting complex CRUD operations, multi-criteria data filtering, and automated notification systems.
- Built an event-driven communication system that triggers real-time notifications and automated email delivery via **Node mailer**.
- Managed flexible **NoSQL data modeling** with **Mongoose**, creating schema-based structures to handle diverse and evolving data requirements.
- Established robust maintenance protocol**s**, including automated containerized database backups and environment-specific configuration management.

o Senior Software Engineer
Linkshadow
Linkshadow, the next-generation cybersecurity solution that provides unparalleled detection of even the most sophisticated threats.

11/2020- 01/2025   *JLT, Dubai*

Achievements/Tasks

- Developed high-performance backend services in **Python**, **Go**, optimizing data handling with concurrency patterns.
- Led design and testing of scalable **Python/Django** applications to enhance modularity and maintainability.

- Built tools and dashboards for efficient **data processing, monitoring, and security analysis.**
- Integrated products via REST APIs (SIEM, NAC, firewalls) for seamless system communication.
- Created microservices in **Python**, **Go** for real-time log parsing and event correlation, boosting system throughput.
- Delivered CLI tools in Go to streamline developer workflows and deployments.
- Automated testing and code checks using Py test for reliable software releases.
- Utilized **Git** for version control and effective team collaboration.
- Debugged and improved **Python scripts** for data import, error detection, and resource monitoring.
- Conducted code reviews to enforce best practices and standards.
- Worked independently and on agile teams to meet deadlines and deliver quality solutions.
- Maintained shell scripts for automation and system monitoring.
- Designed **CI/CD pipelines** with Azure DevOps and YAML for automated builds and deployments.
- Standardized deployment processes with **YAML** pipeline templates.
- Automated Python-based deployment tasks, integrating with **Databricks** and **ETL** workflows.
- Managed network configurations and firewalls, complying with Linux security protocols.
- Automated provisioning with Ansible for consistent deployments.
- Implemented open-source **SIEM** systems and managed cloud environments (**Azure, AWS, GCP**).
- Administered virtual machines using KVM and VMware.
- Developed embedded Linux utilities in C and Go for device monitoring.
- Performed low-level debugging and performance optimization on constrained devices.
- Applied **AI/ML** techniques, contributing to automation and integrated solutions.
- Designed and developed modular code for **AI-powered solutions**, training models to explore applications in automation and system monitoring.
- Integrated **LLM-driven solutions** into existing workflows to improve team efficiency and handle real-world user inquiries.
- Configured networking protocols (TCP/IP, IPsec) for secure communications.
- Collaborated on security risk assessment and mitigation with cross-functional teams.
- Collected requirements and aligned product features with stakeholders.
- Mentored junior developers and promoted knowledge sharing.
- Contributed to technical discussions and innovative solution development.
- Strong understanding of networking concepts (**VPNs**, **subnetting**, MPLS, etc.).

o Web Developer
Nintriva Technology Solutions
06/2017-11/2019   *Kochi, Kerala, India*

Achievements/Tasks

- Applied **HTML/CSS** layout techniques alongside **Bootstrap, jQuery, and JavaScript** to develop website frameworks and intuitive user interfaces, while providing daily IT support.
- Demonstrated comprehensive knowledge of web application functionality, including security, session management, and industry best practices.
- Possess a sound understanding of **relational database systems, Object-Oriented Programming**, and web application development.
- Familiar with Search Engine Optimization (SEO) strategies.
- Proficient in web-based programming utilizing **Node.js, MongoDB, and NoSQL** technologies.
- Authored both functional and non-functional software specifications like addressing security, availability, and performance in accordance with corporate standards.
- Conducted regular reviews of websites for operational integrity and content accuracy.
- Led a team of ten employees, increasing office revenue by 200% within nine months, which accounted for 20% of the company's total revenue.
- Leveraged **Python** for backend automation and integration to optimize web application efficiency.
- Implemented Continuous Integration and Deployment (**CI/CD**) methodologies for routine deployments using **Git**.
- Oversaw **unit and system integration testing** to fulfill software quality standards

EDUCATION

- **Bachelor of Technology (B-TECH)**
  LBS Institute of Technology for Women
  06/2010 - 04/2015   *Trivandrum, Kerala*
  Computer Science and Engineering

- **Higher Secondary**
  Cotton Hill GHSS
  06/2008 - 04/2010   *Trivandrum, Kerala*
  BioMath

ACADEMIC PROJECTS AND SEMINAR

- Mini Project on Student Management System.
- Seminar on "Human Computer Interfaces for Interaction with Surgical Tools in Robotic Surgery.
- Project on "Robust Watermarking of Compressed and Encrypted JPEG2000 Images" Image Processing.

SKILLS

- **Generative AI & Agentic Systems**
  Generative AI | Agentic Systems | AI Engineering | LLM Integration | Large Language Models | OpenAI | AZURE OpenAI | Gemini Flash | Google AI Studio | Prompt Engineering | Prompt Design | Context Management | Response Validation | AI Orchestration | AI Agents | Event Driven Agents | API Triggered Agents | Intelligent Automation | AI Workflows

- **Backend & API Engineering**
  Python | Golang | NodeJS | JavaScript | Java | C | C++ | Fast API | RESTAPIs | Microservices | Backend Engineering | Asynchronous Processing
- **Cloud & Platform Engineering**
  AWS | Microsoft Azure | Google Cloud Platform | Multi Cloud | Cloud Native | Cloud Deployment | Scalability | Reliability Engineering
- **DevOps, CI/CD & Automation**
  CICD | Git Lab CICD | DevOps | Docker | Containerization | Ansible | Infrastructure Automation | Git | SVN | Version Control | Environment Configuration
- **Observability & Production Readiness**
  Logging | Monitoring | Observability | Rate Limiting | Fault Tolerance | Error Handling | Cost Awareness
- **Web & UI (Supporting Skills)**
  HTML5 | CSS3 | Bootstrap | JavaScript | AJAX | Responsive Design | UI Prototyping | Frontend Integration
- **Databases, Messaging & Data**
  MongoDB | NoSQL | MySQL | SQLite3 | Parquet | Redis | RedisPubSub | ZeroMQ | Apache Kafka | Kafka Streams | Kafka Connect | Event Streaming | Distributed Messaging | Messaging Systems | Event Systems | ETL Pipelines | Data Processing
- **Networking, Security & Systems**
  Networking | DHCP | DNS | IPAM | Port Scanning | Vulnerability Scanning | Cybersecurity | Secure Systems | Linux | Ubuntu | System Administration | Troubleshooting | Performance Profiling | Embedded Linux
- **Professional & Product Skills**
  Rapid Prototyping | Product Thinking | System Design | API Integration | Developer Tooling | Automation First | Agile Development | Cross Team Collaboration | Mentoring | Technical Leadership

ACHIEVEMENTS AND CERTIFICATES

- ROBOAVR-Robogenesis
  Workshop on autonomous robots conducted by ROBOGENESIS (2012) in association with Microsoft Robotics Developer Studio 2008 RA

- Demisto Engineer: Building the Next Generation SOC
  Cortex by Palo Alto Networks

- Cortex XSOAR Analyst: Running the Next Generation SOC
  Palo Alto Networks

- Hardware & Networking - LBS Institute of Technology for Women
  First Class in "Computer Hardware & Networking" Course conducted by LBS Institute of Technology for Women.

- Exceptional Performance Award
  By Linkshadow

PERSONAL PROJECTS

- E-Commerce Websites
- Chat Bot
- Property Management Website
- Personal Website
- Contributions to Open-Source Projects in GitHub

PERSONAL STRENGTHS

- Ability to be cool when working under pressure.
- Interest in learning new technologies and frameworks.
- Interpersonal skills to lead and communicate with peers.
- Coordinate other workers to achieve departmental goals.
- Maintain a positive work atmosphere by performing and communicating in a manner that promotes good relationships with customers, coworkers and management.
- Conduct investigations; recommend changes and upgrades to equipment.
- Ability to effectively articulate technical challenges and solutions.
- Deal well with ambiguous/undefined problems; ability to think abstractly.
- Ability to prioritize tasks and quickly adjust in a rapidly changing environment.

PERSONAL DETAILS

Nationality - Indian	Date of Birth: 02-09-1992
Visa Status: HSM	Visa Validity: Jan 2030
Marital Status: Married	

LANGUAGES

English
Professional Working Proficiency

Hindi
Professional Working Proficiency

Malayalam
Native or Bilingual Proficiency

Tamil
Professional Working Proficiency