

# John Smilin D.S.

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## Professional Summary

Results-oriented **DevOps Engineer** and **Python Developer** with hands-on experience in automating cloud infrastructure, building CI/CD pipelines, and deploying scalable applications. Proficient in **AWS** services, **Containerization** (Docker, Kubernetes), and **Infrastructure as Code** (IaC) using Python (Boto3) and Bash. Leveraging a strong foundation in software engineering principles to optimize deployment workflows, enhance system reliability, and ensure high availability for production environments.

## Education

**Excel Engineering College** — B.E. Computer Science and Engineering

2025

*Relevant Coursework:* Cloud Computing, Operating Systems, Database Management Systems (DBMS), Computer Networks, Data Structures & Algorithms, Object-Oriented Programming (OOP).

## Technical Skills

**Languages & Scripting:** Python (Advanced), Shell Scripting (Bash), Java, SQL

**Cloud Infrastructure (AWS):** EC2, S3, Lambda, VPC, IAM, SNS, CloudWatch, Amplify, CLI, Route53

**DevOps Tools:** Docker, Kubernetes, **Helm**, Ansible, Terraform, Jenkins, GitHub Actions, **GitLab CI**

**Monitoring & Logging:** Prometheus, Grafana, ELK Stack, AWS CloudWatch

**Databases & OS:** MySQL, Oracle SQL, Supabase (PostgreSQL) | Linux (RedHat, Ubuntu), Windows

**Core Concepts:** CI/CD Implementation, Microservices Architecture, Infrastructure as Code, REST APIs

## Professional Experience

**Freelance Cloud & DevOps Engineer**

Jan 2024 – Present

- CI/CD Pipeline Automation:** Designed and implemented end-to-end CI/CD pipelines using **Git** and **GitHub Actions**. Automated the build, test, and deployment phases for web applications, effectively reducing manual deployment time by 40% and minimizing human error in production releases.
- Cloud Infrastructure Management:** Provisioned and managed high-availability **AWS EC2** instances running Linux. Configured Nginx as a reverse proxy and load balancer to optimize traffic flow, ensuring 99.9% uptime and low latency for client applications.
- Containerization Strategy:** Spearheaded the migration of legacy applications into **Docker** containers. Created highly optimized Dockerfiles to ensure strict environment consistency across development, staging, and production, resolving "works on my machine" issues.
- Security & Access Control:** Enforced strict security protocols by configuring granular **AWS IAM** users, roles, and policies. Implemented the Principle of Least Privilege (PoLP) to strictly secure cloud resources and sensitive data storage.
- Automation Scripting:** Developed complex **Python (Boto3)** and **Shell** scripts to automate routine system maintenance tasks, such as log rotation, disk space monitoring, and scheduled backups, significantly reducing operational overhead.

## Key Projects

**Automated Cloud Infrastructure Provisioning Tool** *Tech: Python, Boto3, AWS* Developed a robust Python automation tool using the **Boto3** SDK to programmatically provision AWS infrastructure. The script automates the creation of a custom **VPC**, public/private subnets, Internet Gateways, and Route Tables. Integrated logic to launch **EC2** instances and immediately attach **CloudWatch** alarms for CPU monitoring, ensuring proactive resource management.

**Serverless Event-Driven Image Processing Pipeline** *Tech: AWS Lambda, S3, SNS* Architected a serverless backend solution where image uploads to an **S3 bucket** automatically trigger an **AWS Lambda** function (Python). The function processes images (resizing/formatting) in real-time. Integrated **Amazon SNS** to send immediate email notifications to administrators upon successful processing or failure events, demonstrating mastery of event-driven cloud architecture.

**Microservices Deployment with Kubernetes & Monitoring** *Tech: Docker, K8s, Helm, Ansible, Prometheus* Containerized a Python microservices application and orchestrated deployment on a **Kubernetes** cluster using **Helm charts** for efficient package management. Implemented **Prometheus** for real-time metric scraping and configured **Grafana** dashboards to visualize cluster health and pod performance. Utilized **Ansible** playbooks to automate node configuration, ensuring a reproducible environment.

## Certifications

**Capgemini — Campus to Technical Careers (CTC)** 2024 – 2025 Comprehensive training in Core Java 8, SQL, Git, and foundational Cloud concepts. Gained practical experience in full-stack workflows. Certificate ID: T030304330.

**DevOps & Cloud Engineering Training Completed Modules:** AWS (EC2, S3, IAM, SNS, CloudWatch, VPC), Python Automation, Shell Scripting. Gained hands-on experience in cloud resource management and scripting.