Santiago Garcia Arango

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English (bilingual proficiency) | Spanish (native)

EXPERIENCE

Lead Systems Engineer [DevOps] (EPAM Systems)　　　　　　　　　　　　　　　　　　　(2023-present)

Lead DevOps Engineer leveraging AWS and DevSecOps practices for global enterprise companies (PennyMac).

- Designed and implemented Generative AI architectures using Amazon Bedrock to power custom document processing systems and internal company chatbot assistants. Increased operational efficiency by 50% compared to the original approaches.
- Designed transactional event-driven architectures that involved advanced cloud-native idempotent workflows for payment processing. Leveraged "Feature Flags" validations for managing new features and used DynamoDB Single Table Design for optimal data fetching.
- Developed highly scalable APIs and Step Function workflows by leveraging the power of CDK Applications, which contain custom reusable constructs for the infrastructure, and utilizing serverless compute resources to optimize the execution of logic and enhance efficiency..
- Participated in Open Source software contributions for internal EPAM Systems architectures, tutorial videos and technical articles.
- Contributed to the CI/CD and Infrastructure as Code deployments of "Availia", a coordinator assistant platform. Implemented ECS as the Docker container orchestration mechanism on top of FastAPI, achieving over 90% efficiency improvement for deployments.

Senior Systems Engineer [DevOps] (EPAM Systems)　　　　　　　　　　　　　　　　　　　　(2022-2023)

Senior DevOps Engineer leveraging AWS and DevSecOps practices for global enterprise companies (BoseCorp, PennyMac).

- Developed robust Infrastructure as Code solutions being used in 15+ teams as Terraform modules that worked as "Cloud-Building-Blocks" for simplifying AWS deployments with a complete CI/CD re-usable and highly configurable approach.
- Contributed to the creation of deployment strategies for a multi-account and multi-region solution that impacted more than 100 AWS accounts and required an advanced understanding of networking, IaC, AWS CDK, AWS Control Tower and security concepts..
- Built cloud-native production level REST-API and CLI (decoupled) on AWS that helped in the automation of internal company-wide workflows containing more than 10 microservices with unit-testing, integration-testing and tunable deployments with GitLab CI/CD and external tools such as SonarQube and Checkov.

Software Engineering Specialist [DevOps-Cloud] (Bancolombia, Colombia)　　　　　　　　　　　(2021-2022)

Specialist Software Engineer for high-impact transactional projects enhancing cloud-native solutions.

- Implemented microservice architectures obtaining up to 99% deployment efficiencies with tools such as Docker, AWS, Azure DevOps, SonarQube and OWASP.
- Participated in the migration (mostly refactors and replatforms) of 10+ transactional applications from on-premise data centers towards AWS and Azure clouds.
- Developed numerous automation towards deployments, security configurations and upgrades of transactional applications with programmatic approaches such as AWS Lambdas (Python and NodeJs), Bash scripting, Pipeline tasks, AWS Cloudformation and Packer.
- Elaborated multiple bootcamps and projects for 200+ colleagues related to AWS, DevOps and IBM products (WAS, MQ, OpenLiberty).

DevOps Engineer (PRAGMA, Colombia)　　　　　　　　　　　　　　　　　　　　　　　　　　(2021)

DevOps Engineer provider/consultant for "Journey to the Cloud Projects".

- Created the CI/CD design of 3 Cloud Infrastructure projects, with App/DB layers and pipelines on Jenkins, Azure DevOps, for enterprise cloud deployments (mainly AWS).
- Improved deployment times and efficiencies up to 90% by developing reusable Infrastructure as Code templates for AWS cloud architectures with tools such as CloudFormation, Terraform and Packer.
- Supported the process of various migrations to the cloud, transforming 3 legacy applications, to cloud-native technologies and DevOps practices in an automated and highly available schema. Used Docker/Kubernetes and a microservice architecture.
- Developed 1 core learning path with Docker, Jenkins and SonarQube projects for teaching DevOps in "PRAGMA Academy", which is an inner company learning site that has been used by more than 1000 developers.

EDUCATION

IMF Smart Education (Rank top 5 in Online Másters Europe)　　　　　　　　　　　　　　　　(2022 - 2024)

M.S. Cybersecurity (CyberSOC Deloitte)

Selected Courses:

- Cyber Intelligence, Secure Software Development, SIEM Technology, Reverse Engineering, Ethical Hacking.

EIA University (Rank top 5 for Engineering in Colombia)　　　　　　　　　　　　　　　　　　(2017 - 2021)

B.S. Mechatronics Engineering　|　GPA: 4.73 / 5.0

Selected Courses:

- Digital Control of Dynamic Systems, Numerical Modeling and Simulations, IoT, Signals and Systems, Industrial Robotics, Intelligent Systems, Networking and Communications, Electronics and Microcontrollers, Computer Vision.

Awards:

- Honorable Mention for Highest GPA of all University in graduation ceremony [dec 2021] (MAGNA CUM LAUDE).
- Public Award for the final project named "Assisted Robotics For Feeding Individuals with Upper Limb Disabilities" in Mechatronics Engineering Degree.
- 5 times Honor Roll for Academic Excellence (Best GPA of Mechatronics Engineering Cohort).

RELEVANT CERTIFICATIONS

To see details of my courses and certifications, go to: LINK_TO_CERTIFICATES

- AWS Certified Solutions Architect - Associate, AWS Certified SysOps Administrator - Associate, AWS Certified Developer – Associate, AWS Certified Cloud Practitioner, IBM Enterprise Design Thinking Practitioner.

LEADERSHIP

YouTube Channel: "Santiago Garcia Arango Tech"   (2019 - present)
- Creator of a DevOps YouTube Channel for transferring top tech technologies for Spanish audiences (800+ subs) .

AWS User Group Leader - Medellin   (2024 - present)
- AWS User Group Leader in Medellín, where I host and organize local AWS events with 1000+ members.

AWS Community Builder - Serverless   (2023 - present)
- Selected as an AWS technical enthusiast CB because of content related to my GitHub repositories and YouTube channel .

Object-Oriented-Programming Research Group in EIA University   (2019 - 2021)
- Lead student for Clean-Code development, Github implementation and Python PEP Standards.
- Worked in the development of modules for pattern recognitions in Colombian license plates using OpenCV.

Assistant tutor for editorial research in EIA University   (2018 - 2021)
- Coached more than 60 students to structure academic thesis and writing projects with investigation standards.

AWARDS

- Honorable Mention for Highest GPA at EIA University in graduation ceremony (MAGNA CUM LAUDE).   (2021)
- Top 10 teams in leaderboard for Local Hack Day at Major League Hacking event [ESTechies]   (2021)
- Top 50 most active GitHub users in Colombia.   (2020-2021)

TECHNICAL TOOLS

Coding Languages:

- Python, JavaScript, TypeScript, Bash, HTML, CSS, GoLang, Java, SQL, GraphQL, MATLAB, Arduino.

Methodologies:

- CI/CD, Infrastructure as Code, DevSecOps, Event Driven Architectures, TDD, SOLID, Design Patterns, Scrum, Clean Code, Static Code Analysis, Pair Programming.

Technical:

- Git, AWS (see details below), Terraform, Docker, Kubernetes, Linux Distributions, GitLab CI, Azure DevOps, Jenkins, SonarQube, SQL, No-SQL, IBM WAS, IBM MQ, Packer, New Relic, LaunchDarkly, Prometheus, OWASP, MetaSploit, Wireshark, Netcat, IoT, LaTex.

AWS Experience:

- [AWS Certified x4], IAM, CloudFormation, CDK, Organizations, Lambda, Lambda Layer, EventBridge, API Gateway, DynamoDB, CloudWatch, S3, CloudFront, Step Functions, SQS, SNS, SES, Route53, ACM, AMI, EC2, Bedrock, EBS, EFS, ASG, VPC, Transit Gateway, IPAM, Athena, Glue, SSM, CodeBuild, CodePipeline, IAM Identity Center (SSO), Control Tower, Kinesis, Chime.

COMMUNITY PROJECTS

Volunteer for AWS Architect and DevOps Mentor (WomenInCloud, EPAM)   (2024 - present)

I have been volunteering as an AWS Instructor, sharing my knowledge with a group of students starting in the cloud journey.

- Helped 300+ women that have overcome significant cultural challenges in their lives.
- Taught 100+ students for Cloud and DevOps free courses, empowering local individuals to pursue opportunities in the cloud.

Baxter-Bon-Appetit Robotic Solution for Impaired Patients (Highlights)   (2021)

Assistive robotic solution/framework for feeding individuals with upper limb disabilities autonomously.

- Developed from scratch the Robotic Algorithms, the Control Strategies and the Computer Vision requirements based on theoretical and experimental top-technology research with Baxter Robot.
- Integrated the Sub-Systems with Microservices approach with a Python-based ROS architecture. Algorithms and Frameworks are Open Source and implemented not only a TDD approach, but were also designed with a rigorous documentation for replicating the project in similar robots of 3+ DOF.

VARIOUS

Activities
- Piano: Adapted different rhythms to tropical Latin-American songs. I love mathematics and the science of music.
- I like to juggle, listen to audio-boks and do sports (spinning, running and Squash).