Matei Marius Micu

Systems Engineer/Site Reliability Engineer

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Technical Proficiencies

Programming Languages: Rust, Python, Golang, Bash, SQL, JavaScript, Typescript

Platform: Kubernetes, Docker, ArgoCD, Terraform, Pulumi, Helm, OpenStack

Cloud Computing: Amazon Web Services (AWS), Google Cloud Platform (GPC), Microsoft Azure Cloud, Digital Ocean, Heroku

Career Experience

Prisma, Remote   *Apr 2022 - Present*
Senior Software/Infrastructure Engineer

Focused on developing the Prisma Data Platform. Enhanced infrastructure monitoring mostly on AWS, with elements also on GCP and Azure. Decreased the number of useless metrics from 150k to no more than 30k. Produced Minimum Viable Product (MVP) report to give Support and Product a snapshot of current platform usage. Emphasised achieving feature parity with the open-source offering.

- Reduced monitoring expenses by 60% while increasing metric intake efficiency.
- Acquired ownership of the complete infrastructure for all products, including old and new.
- Integrated a much-requested function known as interactive transactions
- Dealt with emergency situations and found solutions during on-call rotation

HotJar, Remote   *Oct 2020 –Mar 2022*
Site Reliability Engineer

Enhanced current AWS infrastructure's security, backup procedures, and disaster recovery capabilities. Served as Incident Commander and Tier 1 responder and introduced a new incident process. Migrated the ingestion pipeline. Entailed modifications to both the infrastructure and the products.

- Improved deployment time and reliability by reengineering the 800K web socket ingestion mechanism to run natively on Kubernetes.
- Built a backup system for over 900 terabytes of information from multiple sources, such as database, S3, and elastic search.

Mambu, Iasi   *Jun 2018 – Oct 2020*
Site Reliability Engineer

Transformed time-consuming, error-prone manual disaster recovery strategy into a tried-and-true, fully-automated one to get 50+ environments up and running again in a different AWS region in less than two hours.

Designed brand new infrastructure platform with Kubernetes, Terraform, Amazon Web Services (AWS), and Cloud-Native software.

Developed and tested a GitOps-style release process for microservices with the help of GitLab, Helm Charts, and ArgoCD. Employed Terraform, Terragrunt, and GoLang to automate infrastructure needs. Implemented and commercialised an internal streaming platform based on Kafka and Nakadi. Arranged in-house seminars or one-on-one supervision lasting from one to four weeks to get development teams ready to roll out the first set of production microservices.

- Upgraded 50+ environments to Kubernetes to better facilitate the development and composition of microservices utilised by more than 15 different microservices.
- Converted manual deployment procedures into automated ones by leveraging ArgoCD.
- Developed and executed a system for dealing with emergency migration from one region to another.
- Enabled concurrent creation of 15+ microservices and a pre-existing monolith in record time.

Mambu, Iasi   *Sep* **2017** *– Jun* **2018**
DevOps Engineer

Streamlined Operations tasks, comprising provisioning, pipelines for Terraform, general CI/CD, container-based infrastructures, and lambdas/serverless-based projects. Engaged with the support, Ops, and development teams to tackle enterprise-wide issues such as compliance tooling and cloning/obfuscation.

Created internal infrastructure that facilitated developers' compliance access to 50+ production databases. Conducted audit of current resources and made necessary enhancements.

Provided Python assessments and recommendations for various departments. Organised series of workshops centred on more advanced Python-related subjects, language features, and frameworks SQL Alchemy, calling C and Java code from Python, Flask, Django, tox, PyTest, and Conu.

- Improved invoice monitoring for a monthly spend of approximately $500 000.
- Developed a set of services to orchestrate automatic generation of database to automatically generate database dumps from over fifty different environments with obfuscated production data.
- Reduced time required to obtain an encrypted dump from over two days using the manual technique to only a few hours.

Cloudbase Solutions, Iasi   *Mar* **2016** *– Aug* **2017**
Cloud Engineer

Supported the OpenStack ecosystem by developing and updating the related Opensource projects, such as Argus-Ci tool for developing sophisticated integration tests for cross-platform software. Maintained Cloudbase-init project that facilitates running windows instances in the cloud. Windows to six, including Windows Nano. Collaborated with additional OpenStack projects while maintaining the Jenkins pipelines and OpenStack cluster for the initiatives.

- Enhanced efficiency from 60 hours to 20-30 minutes by assembling scenarios and running all parallel.
- Developed configurable mock metadata API for more sophisticated scenarios.
- Managed public CI running on OpenStack cluster for the Cloudbase-init project.
- Established tools to monitor and manage cloud infrastructure.

Additional Experience

Collaborator Teacher Assistant, Faculty of Computer Science, Alexandru Ioan Cuza University, Iasi, Romania
        Courses: Web Technologies, Open Source Development & Linux
Technical Trainer, Wantsome, Alexandru Ioan Cuza University, Iasi, Romania
        Twelve weeks bootcamps: Python Software development, DevOps/System Reliability Engineer Trainer

Education

Master of Science in Computer Science / Distributed systems / Cloud Computing
    Alexandru Ioan Cuza University, Iasi, Romania

Bachelor of Science in Computer Science
    Alexandru Ioan Cuza University, Iasi, Romania

Volunteer Experience

Guest lectured at Cloud Computing course, OpenStack overview at Faculty of Computer Science, Iasi
Trainer, Open Source Camp - Crash course into Python
Advance Git at Faculty of Computer Science (Iasi) - Cherry-Picking, Rebasing, advanced workflows
Trainer at FII Practic, Iasi - Introduction in DevOps and automation over the course of six weeks

Licenses & Certifications

CKAD: Certified Kubernetes Application Developer, The Linux Foundation
CKA: Certified Kubernetes Administrator, The Linux Foundation
KCNA: Kubernetes and Cloud Native Associate, The Linux Foundation
CKS: Certified Kubernetes Security Specialist