

# Ioannis Petrousov

INDEPENDENT SOFTWARE ENGINEER

North Holland, Netherlands

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“Kaizen”

Hi there! - Welcome to my career summarizer.

## Skills

**Programming** Python, Bash, C, Make, Lua, Javascript, Go, Flex, Bison, Compiler design

**IaC & CM** Terraform, Ansible

**Public Cloud** AWS

**Containers** FreeBSD jails, Mesos, DC/OS, Docker, AWS ECS, Kubernetes

**Web** HTML, CSS, Flask and static site generators.

**Operating systems** Linux & Unix based OSs

**Languages** Greek, English, Russian, Dutch (casual)

## Experience

### DPG Media

Amsterdam, Netherlands -

Hybrid

FREELANCE DEVOPS ENGINEER

Jun 2023 - Today

I was brought in to containerize and migrate all of the frontend application from EC2 to ECS. Here's a short summary of the deliverables so far:

- Architected the Landing Zone for the ECS setup
- Built a Terraform module to easily replicate *non-prod* and *prod* environments
- Developed a custom deployment pipe for BitBucket pipelines to support deployments to the environments
- Setup monitoring and log streaming into OpenSearch
- Implemented a lambda for *Out of Office Hours* ECS shutdowns and starts - cost optimization
- Developed a setup for segregated test environments per application - each dev own test environment
- Documented and demoed the new setup
- **Technologies: AWS, Terraform, Docker, Python, Bash, BitBucket pipelines**

### ZEN Software

Alkmaar, Netherlands

FREELANCE CLOUD ENGINEER

Mar 2022 - Dec 2022

#### Maxeda

CLOUD SOLUTION ENGINEER

- Designed and implemented a new CI/CD pipelines stack for a Java based service: Hybris
- Scripted and migrated manual CI/CD pipelines for Hybris from Bamboo into BitBucket cloud
- Collaborated to bring self-hosted BitBucket runners for critical CI/CD pipelines
- Experimented hacking BitBucket self-hosted runners to use buildkit and full caching mechanism
- Designed and implemented changes in Terraform on AWS and Checkly
- Collaborated on making local development possible using docker-compose
- Developed a migration plan from Ansible to Terraform for ECS microservice deployments
- Implemented a Python lambda to dynamically activate AWS WAF challenge rule to prevent DDoS attacks
- Implemented Greta: a shell script which kills overlapping pipelines in BitBucket (thus making environmentally friendly builds)
- **Technologies: AWS, Terraform, Docker, Makefile, BASH, Python, maven, BitBucket pipelines, HTTPD**

## Hubs - a Protolabs company

### DEVOPS ENGINEER

Amsterdam, Netherlands

Jan 2020 - Mar 2022

- Migrated a self-hosted RabbitMQ cluster into AmazonMQ with minimal downtime
- Proposed and developed the first Public ML pricing API as a hackathon project
- Implemented monitoring and alerting from the ground up with NewRelic
- Obsessed with NewRelic cost optimization: saving \$1300/month on average
- Migrated CI pipelines for Frontend and ML projects from Jenkins to Github Actions
- Performed Github Actions optimizations with parallelisation and smart caching
- Worked on the development of self-hosted kubernetes on AWS
- Worked on cost optimizations for AWS by migrating, optimizing and automating resources
- Automated on/off-boarding into Github org.
- Collaborated cross-team to implemented requested functionality on AWS and Kubernetes
- Performed rotational standby and ad-hoc work
- **Technologies: AWS, Terraform, Docker, k8s, Github Actions, Python, Bash, Concourse**

## Mirabeau - a Cognizant Digital Business

### SENIOR CLOUD SOLUTION ENGINEER

Amsterdam, Netherlands

Mar 2019 - Dec 2020

- Worked with several clients, focusing on AWS, on-site and remotely
- Got voted as hero for contributions to technical writing

### Karwei

#### SENIOR CLOUD SOLUTION ENGINEER

Jul 2020 - Dec 2020

- Implementing requested functionality in Terraform on AWS
- Answering technical questions, related to AWS and CI/CD
- Participated in on-call rotation
- **Technologies: AWS, Terraform**

### Arcadia Group

#### CLOUD CONSULTANT

Remote

Jun 2020 - Jul 2020

- POC for a client
- Migrated a legacy 3-tier POS system into AWS
- **Technologies: AWS, CloudEndure**

### Maxeda DIY Group

#### CLOUD ENGINEER

Mar 2019 - June 2020

- Worked with multiple dev and business teams
- Implemented CI/CD pipelines using Bitbucket pipelines
- Migrated monitoring and alerting from New relic into SignalFX, OpsGenie, Slack
- Migrated self-hosted Apache servers into a microservice
- Developed IaC in Ansible and Terraform
- Implemented various glue logic in Lambdas and Python
- **Technologies: AWS, Python, ECS, Docker, Terraform, SignalFX, Ansible, Apache, Logzio**

## PVH Corp.

### DEVOPS SPECIALIST

Amsterdam, Netherlands

May 2018 - Feb. 2019

- Developed custom plugins for Kong (Lua)
- Evangelized Jira, Confluence, Slack, git
- Liaise with management and stakeholders (ISG, legal, directors)
- Worked in a highly agile team developing a centralised API system
- **Technologies: VMWare, Lua, Docker, OVH cloud, WCS**

## Vandebroon Energie B.V.

### DEVOPS DEVELOPER

Amsterdam, Netherlands

Oct. 2017 - Feb. 2018

- Deployed infrastructure on Azure
- Worked on setting up a Kubernetes cluster to facilitate the hosting of Scala based microservices
- CD/CI: Jenkins server and Dockerized, Groovy
- Automation: Ansible, bash
- Developed shell scripts for interaction with Azure, Kubernetes and GCP
- **Technologies: Azure, Kubernetes, Docker, Ansible, Nginx, Node, Kafka, Scala**

## Greek Army

### CONSCRIPT

Greece

Mar. 2017 - Jun. 2017

- It's a mandatory conscription, in case you were wondering about the career pause
- **Stack:** Wired telecommunications, G3A3 rifle

## Betiator gaming technologies

### SYSTEM ADMINISTRATOR

Athens, Greece

Aug. 2015 - Oct. 2016

- Ran, maintained and managed services on bare-metal for a small startup
- Designed and implemented a cluster for microservices based on Docker, Mesos, Marathon and Zookeeper.
- Upgraded to DC/OS.
- Developed scripts for autoscaling, recovery and reconfiguration.
- Performed configuration and monitoring of Couchbase clusters.
- Implemented continuous delivery pipelines with Jenkins, Python and bash.
- **Technologies:** Docker, DC/OS, shell, Java, Wildfly, Redis, Node, Jenkins, Couchbase, Hadoop

## IP Digital

### LINUX ADMINISTRATOR (INTERN)

Thessaloniki, Greece

Oct. 2014 - Dec. 2014

- I was setting up a virtualization service on bare-metal for a small hosting company
- Implemented a high availability cluster with Proxmox and Ovirt to facilitate application hosting.
- Created a backup and network storage using Freenas and zfs.
- Developed bash scripts for automation and logs.
- **Technologies:** Ovirt, Unraid, Nas4free, Zfs, Nappit, Omnios, OpenIndiana, Nexenta, Proxmox

## Laboratory of Digital Systems and Computer Architecture

### LABORATORY ASSISTANT (REWARDING SCHOLARSHIP)

Kozani, Greece

Mar. 2014 - Jun. 2014

- Supervised students on the courses
  - Operating systems
  - Systems of parallel and distributed execution
  - Digital design

## University Of Western Macedonia

### UNIVERSITY LIBRARIAN (REWARDING SCHOLARSHIP)

Kozani, Greece

Mar. 2013 - Jun. 2013

- <http://lib.uowm.gr/>

## Education

### UWM (University of Western Macedonia)

#### M.S. IN INFORMATICS AND TELECOMMUNICATIONS ENGINEERING

Kozani, Greece

2017

- 5-year programme
- Societies: IEEE
- Grade 7.67/10.0

## Certifications & Awards

- 2023 **AWS Solutions Architect - Associate**, XV6M9JC2EBF41Q32
- 2022 **Certified Kubernetes Application Developer (CKAD)**, LF-p2hxp1v6o8
- 2020 **AWS Certified DevOps Engineer - Professional**, WX0CEL01HJBEQJ97
- 2020 **AWS Certified Developer - Associate**, RZB70KQ1PMRQ1MS2
- 2019 **AWS Certified Solutions Architect - Associate**, XV6M9JC2EBF41Q32
- 2014 **Rewarding scholarship**, University of Western Macedonia
- 2013 **Rewarding scholarship**, University of Western Macedonia

Greece

Greece

## Publications

- [1] Giannis Petrousov and Minas Dasygenis. A unique network EDA tool to create optimized ad hoc binary to residue number system converters. In *24th International Workshop on Power and Timing*

*Modeling, Optimization and Simulation, (PATMOS), Palma de Mallorca, Spain, September 29 - Oct. 1, 2014.*

- [2] Giannis Petrousov and Minas Dasygenis. Designing optimized forward residue number systems IP blocks converters from a network interface. In *18th Panhellenic Conference on Informatics, PCI '14, Athens, Greece, October 2-4, 2014.*
- [3] Minas Dasygenis and Ioannis Petrousov. A networking EDA tool for multi-vector multiplication IP circuits. In *10th International Conference on Design & Technology of Integrated Systems in Nanoscale Era, DTIS 2015, Napoli, Italy, April 21-23,, 2015.*
- [4] Minas Dasygenis and Giannis Petrousov. A generic moduli selection algorithm for the residue number system. In *10th International Conference on Design & Technology of Integrated Systems in Nanoscale Era, DTIS 2015, Napoli, Italy, April 21-23,, 2015.*
- [5] Ioannis Petrousov Minas Dasygenis. Online generation of constant multiplication accelerators. In *Panhellenic Conference on Electronics and Telecommunications, PACET, May 8-9, 2015.*
- [6] Ioannis Petrousov and Minas Dasygenis. Generating custom bitwidth 4:2 compressors in hardware description language from an online tool. In *4th International conference on Modern Circuits and System Technologies, May 12-14, 2015.*
- [7] Ioannis Petrousov and Minas Dasygenis. A CAD tool for custom magnitude comparators. In *Proceedings of the 19th Panhellenic Conference on Informatics, PCI '15, Athens, Greece, October 1-3, 2015.*
- [8] I. Petrousov and M. Dasygenis. Realization of a hardware generator for the sum of absolute difference component. In *6th International Conference on Modern Circuits and Systems Technologies (MOCAST)*, pages 1–4, May 2017.
- [9] Ioannis Petrousov and Minas Dasygenis. Automating the generation of hardware accelerators from custom arithmetic functions. In *Proceedings of the 21st Pan-Hellenic Conference on Informatics, PCI 2017*, pages 14:1–14:5, September 2017.

## Volunteering

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### University Of Western Macedonia

VOLUNTEER SYSTEM ADMINISTRATOR

Kozani

Jan. 2011 - Jul. 2012

- System maintenance: FreeBSD and Ubuntu.
- Virtualization: chroot, jails and VirtualBox.
- Storage: ZFS, NFS, Samba.
- Wrote automation and monitoring scripts.

## Presentations

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My presentations are hosted online on speakerdeck

<https://speakerdeck.com/gpetrousov>

I write a blog on medium <https://medium.com/@petrousov>