

PATRICK PAECHNATZ

PRINCIPAL SECURITY ARCHITECT

CONTACT

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PROFILE

Results-driven, accomplished professional recognized for designing and delivering cloud architecture and DevOps solutions that meet strict security and quality requirements. Known for strong analytical abilities and a proven track record of addressing complex challenges by combining industry-standard and emerging technologies. Skilled at producing high-quality, well-structured code, developing robust CI/CD pipelines, and leading requirements-gathering sessions with stakeholders. Demonstrates effective team leadership and excels at collaborating with diverse cross-functional teams. Credentials include Certified Information Systems Security Professional (CISSP), GCP Certified Solution Architect Professional (GCPSAP), AWS Certified Solution Architect Professional (SAP), and BSI-GSP.

EDUCATION

ELTRONIC ENGINEERING

HTW Dresden
2001 - 2004

COMPUTER SCIENCE

TU Dresden
2004 - 2007

SKILLS

PROFESSIONAL

Team Management

Problem Solving

Programming

Cyber-Security

Cloud Technologies

System Hardening

WORK EXPERIENCE

FOUNDER, RELICFROG Consulting | July 2024 - present

Founded and developed an IT security and consulting services business from the ground up with a focus on developing and delivering modern and impactful solutions to a diverse client base.

- Developed secure network infrastructures and hardened IoT systems to mitigate cyber risks.
- Designed high-availability, multi-zone orchestration systems (K3s, K8s) in data center and hybrid environments.
- Conducted cloud architecture core reviews for Azure, AWS and GCP, optimizing for scalability, security, and cost efficiency.
- Performed code and architecture baseline reviews to improve stack maintainability and scalability in client projects.
- Supported IT transformation projects, including legacy-to-cloud migrations & infrastructure modernization.

CHIEF CLOUD ARCHITECT | FOUNDER | SHAREHOLDER | CO-MANAGING DIRECTOR MPOWER IT GmbH | Feb 2022 - present

Spearhead the development and delivery of value-added cloud architecture solutions for automotive customers, including service-mesh integration solutions, using multi-cluster K8s/K3s Ops MS/IoT technology.

- Orchestrate and lead impactful AWS/GCP and SecOps projects from planning to delivery, driving the seamless execution of DHW/DL architecture and other multi-cloud/on-premises Apache Kafka, Druid, and Hadoop.



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SKILLS

TECHNICAL

CI/CD/CCQ
DevOps/DevSecOps
VM Technologies
Provisioning Tools
Containers Technologies
Container Orchestration
Database Technologies

AWARDS

KAFOR Operational Medal
KRK/BW - 2000

Medal for Deployment
KOSOVO - 1999

INTERESTS

Open Source
Literature
Aviation
Cooking
Chess

WORK EXPERIENCE CONTINUED

MPOWR IT GmbH | CONTINUED ...

- Establish automated security policies for containerized environments to strengthen compliance and operations.
- Maintain the ongoing functionality of both on-premises and cloud SecOps architecture by performing system hardening and overseeing intrusion detection systems and intrusion prevention systems (IDS/IPS).
- Chart the successful development and implementation of Ansible and Terraform-based Infrastructure-as-Code (IaC) strategies as well as Flux/ArgoCD-based K8s CI strategies.
- Produce high-quality, well-structured code in C++, Golang, Rust, Erlang; gain experience with Node.js and Python.

LEAD DEVOPS & INFRASTRUCTURE ARCHITECT

Elia Transmission Belgium SA/NV (50Hertz, Berlin) | 2024 - now
Established and led a high-performing DevOps team, introducing a comprehensive team manifesto to define technical standards, collaboration frameworks, and shared goals.

- Developed and implemented foundational processes for efficient teamwork, including coding guidelines, CI/CD best practices, and security-focused workflows.
- Designed and managed GCP-to-data center mixed-cloud environments with multi-zone/multi-region architectures for increased resilience and scalability.
- Draft and prepare detailed technical documentation and reports for recordkeeping and compliance.
- Spearheaded SecOps initiatives to ensure compliance and operational security in hybrid cloud infrastructures.
- Provided ongoing training, mentorship, and guidance to team members, fostering professional growth and enhancing project outcomes.
- Drive continuous improvement by identifying development inefficiencies and implementing streamlined solutions.

SENIOR CLOUD ARCHITECT, DoiT-INTL

DoiT International (Aviv-Yafo, Israel) | June 2020 – Feb 2022
Established rapport and trust-based relationships with clients in various industries while providing consulting services for security and HA solution development with GCP/AWS infrastructure, including Israel Post, Israel Ministry of Finance, Sentinel One, SiSense, Siemens, Valtech Mobility, SodaStream, Gett, Blinkist, and Check Point Security.

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SPEAKER

ACTIVITY

GCP Community Belgium
CNCF Community Netherlands
K8s Community Dresden

ORGANISATION

AWS Community DACH
DevDays Germany (Saxony)

OPENSOURCE

CONTRIBUTION

ANSIBLE Debian Project
ANSIBLE MITOGEN
K8s Cert-Manager (helm)
APACHE Druid (CORE)

SELECTED REPOS

BE COVERFISH
FE BARCODE GENERATOR
iOS AQOO RADIO

PROJECTS

CURRENT

ARIBOR AGENT
ARIBOR SIEM/SOAR
ARIBOR DEVICE [IOT]

WORK EXPERIENCE CONTINUED

DoiT International | CONTINUED ...

- Employed technical project management expertise to champion the delivery of key initiatives, such as migrating data center infrastructure to hybrid Kubernetes (Rancher) and Google Kubernetes Engine (GKE) environments, utilizing service mesh architectures to enable seamless and secure communication between services, streamlining lightweight functions and reducing complexity/operational overhead by implementing serverless solutions, and designing flexible architecture to integrate legacy systems and cloud-native services while ensuring scalability and optimal production workload performance.
- Demonstrated expertise delivering value-added results within complex legacy architecture environments.

CLOUD SOLUTION ARCHITECT

AllCloud Ltd (Aviv-Yafo, Israel) | Feb 2019 - June 2020

Consulted with industry-leading customers, such as Metro and Audi, to provide AWS cloud consulting services, including advising stakeholders on best practices for data center migration, IaC transition, and industry analysis

- Performed comprehensive reviews of AWS architecture to verify quality and identify areas for improvement.
- Conveyed the value of proposed solutions to stakeholders by developing proof of concepts (POCs) using Golang, C#, Erlang, and C++, directly contributing to achieving buy-in.

IT ARCHITECT/SENIOR DEVOPS ENGINEER

T-Systems MMS (Dresden, Deutschland) | June 2017 – June 2019

Played an integral role in the development of HA business application software and HP API endpoint services for DHL, Aldi, and BMW by overseeing the development of robust DevOps and DevQOps pipelines.

- Served as a key resource for the development of the proprietary MMS QA and testing platform by providing insights regarding software architecture and software development, ensuring optimal platform functionality.
- Automated business applications and processes by migrating critical functionalities to AWS and Azure cloud environments, utilizing cloud-native services for process redesign and modernization, and introducing IaC and serverless architecture, significantly enhancing scalability, efficiency, and adaptability and reducing operational overhead.
- Utilized knowledge of swarm orchestration framework to maintain containerized application stacks via Ranger, OpenShift and K8s native.

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WORK EXPERIENCE CONTINUED

DEPARTMENT LEAD

Move Elevator GmbH (Dresden, Germany) | Dec 2016 - June 2017

Provided dynamic, high-quality leadership to 12 staff and two trainees while serving as the Department Lead for system development and engineering operations; fostered a cohesive and collaborative work environment.

- Strengthened team and stakeholder knowledge of system engineering technologies, such as Docker, K8s, Rancher, and Ansible, by planning and leading engaging internal and external workshops.
- Devised and executed deployment strategies using Jenkins and SecureCI pipelines, leading to improved efficiency
- Conducted both static code analysis (SCA) with SonarQube and dynamic code analysis (DCA) using Dynatrace to generate CCQ analytics to mitigate risks and strengthen code integrity.

SENIOR DEVELOPER

Move Elevator GmbH (Dresden, Germany) | Jan 2014 - Dec 2016

Complied with strict programming quality standards and client requirements while developing high-

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LANGUAGES

ENGLISH
BE/CC-2, BCE 1.2, FLUENT

GERMAN
NATIVE

CERTIFICATIONS CONTINUED

GCP Certified Solution Architect Professional (GCPSAP), Sept 2020
AWS Certified Solution Architect Professional (SAP), Dec 2019
AWS Certified Solution Architect Associate (SAA), Nov 2019
iOS Developer Nanodegree (IOSD), Dec 2018
ISTQB Certified Tester FL (ISTQB-CT), May 2018
Docker Certified Associate (DCA), Apr 2018

SELECTED PROJECTS

Principal Security Architect, Daimler Truck | MPOWR-IT, Sept 2022 – May 2024

Technology Stack: *Terraform/Ansible, Apache Kafka/Druid, K8s/KNative Golang/Python, Logz.io/Datadog*

- Multi-DC Kubernetes & Service Mesh: Developed and maintained a multi-DC Kubernetes cluster for the Daimler Truck Test Vehicle Division, implementing robust security protocols (RBAC, mTLS) and baseline CRDs to process MQTT data streams at scale.
- Infrastructure as Code & Data Pipelines: Oversaw IaC GitOps provisioning for both staging and production DCs; provisioned Apache Kafka clusters for ingesting ED MQTT signals, Apache Druid for batch/stream processing, and Ceph storage pools for mission-critical applications in high-availability mode. Deployed advanced monitoring/alerting solutions (Logz.io/Datadog) to ensure system reliability.
- ArgoCD & Cilium Segmentation: Orchestrated ArgoCD-driven payload delivery of backend services across multiple customers and leveraged Cilium for logical network segmentation and enhanced container security.

Lead Security Architect, TRICERA Energy | Tricera GmbH, July 2022 – Oct 2024

Technology Stack: *Technology Stack: Ansible/Mitogen, Python/Golang, ArgoCD/Flux, DC/IoT-Hardening, MQTT/ProtoBuf/mTLS, InfluxDB, Apache Kafka + RedNode.*

- Multi-Account AWS & High-Availability Network: Pioneered the design, deployment, and ongoing support of a multi-account AWS environment (including SaaS stack migration) with hardened security (IAM best practices, network isolation). Additionally, architected a dual-failover network (firewalls, switches, adapters), complemented by a hardened K3s cluster and bastion host.
- Secure IoT Data Interface: Developed a robust MQTT interface using ProtoBuf and mTLS for encrypted energy module data exchange, ensuring compliance with enterprise IoT hardening guidelines and safeguarding critical sensor data.
- GitOps-Driven CI/CD: Integrated ArgoCD and Flux to establish automated, GitOps-based infrastructure pipelines for faster deployments and streamlined updates, boosting operational consistency and speed.



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SELECTED PROJECTS CONTINUED...

Lead Cloud Architect, Intravis/IoT-Platform | MPOWR-IT, July 2023 – Mar 2024

Technology Stack: Terraform/HCL, Terratest/Go, AWS-Lambda/NodeJS, AWS-TSDB/DynamoDB

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SELECTED PROJECTS CONTINUED...

Cloud Solution Architect, Carnect/VW | AllCloud, Jan 2020 – Feb 2020

Technology Stack: *Terraform/HCL, Terratest/Go, AWS-RDS/PostgreSQL, AWS-CloudFront/WAF, AWS-DynamoDB, Prometheus/Grafana, AWS-EKS/Istio*

- Multi-Account AWS Architecture: Transformed the existing single-account AWS resource stack into a secure multi-account setup, implementing SAML/SSO authentication for streamlined user access.
- Security & Governance: Established best-practice security infrastructure (WAF, CloudFront) and introduced processes to maintain compliance and data protection across accounts and workloads.
- IoT Infrastructure Redesign: Led two customer-facing workshops to guide the redesign of IoT BE components in AWS, leveraging Terraform, Terratest, and EKS/Istio to ensure high availability and scalability.

Cloud Architect, Beontra | AllCloud, Aug 2019 – Dec 2019

Technology Stack: *Terraform/HCL, AWS-SageMaker/Python, AWS-Lambda/Python, AWS-StepFunctions, AWS-SQS/AWS-RedShift*

- Machine Learning & Data Pipeline: Designed and deployed a novel ML prediction logic using SageMaker and Python, setting up a Redshift-based data lake and orchestrating ETL workflows through StepFunctions.
- Infrastructure & Automation: Implemented serverless AWS-Lambda functions for data ingestion & transformation, integrating SQS to ensure scalable, event-driven processing.
- Client Collaboration: Led requirement-gathering workshops and developed the initial SageMaker model prototype; oversaw the AWS infrastructure setup and launch while providing ongoing support to the in-house DevOps team.

IT Architect & DevOps Engineer, DHL/German Parcel Service | T-Systems, Sept 2018 – June 2019

Technology Stack: *Rancher/CoreOS, Rancher/Kubernetes, Jenkins/X, Jenkins/BO, Python + Golang*

- High-Availability Architecture: Devised and developed a load-stable, distributed services platform, guiding team members in designing an expanded, API-driven IT service package. Migrated critical Docker applications to a new Rancher orchestration system and transitioned core functionality into an OpenShift-based platform.
- DevOps Support & Optimization: Provided continuous support for the service stack, including active performance profiling, load testing, and environment monitoring to ensure operational excellence and stability.
- Custom CI/CD Pipeline: Built a modular CI/CD pipeline platform using Jenkins Blue Ocean, delivering reusable pipeline components as standalone plugins. Automated module distribution and versioning, resulting in enhanced collaboration, consistency, and scalability for development teams.

SELECTED CUSTOMERS

