

Yauhen Yakimovich

Distinguished Cloud Architect & CTO –
Data-Driven Cloud Solutions:
hands-on, resourceful,
driven by results

25+ years of expertise in software, data and platform development, deep technical foundation, leadership in startup environments, and a passion for building scalable, secure solutions

PriceHubble AG (CTO & Distinguished Cloud Architect)

- Spearheaded MVP development within **six months**, successfully attracting the first paying customers and securing significant investment.
- Expertly applied **containerization** (Google Kubernetes Engine) and **DevOps** methodologies to accelerate development and ensure robust, continuous delivery.

Swiss Re (Security Architect & Cloud Engineer)

- Designed and supported the **IETV** platform, focusing on secure and efficient **Azure**-based infrastructure.
- Implemented **advanced CI** techniques and managed a **microservice** architecture using **Managed-IDs** for a multi-million-franc project.
- Enhanced security and operational workflows through **Azure Data Factory** and **Databricks**, aligning complex **data pipelines** with stringent compliance standards.

Core Technical Skills

- Cloud & Platform Development: Kubernetes, CI/CD, Python, Linux, Bash, large-scale system design
- **Big Data & Analytics:** Spark, Databricks, **MapReduce**, event-driven data streaming pipelines, machine learning
- Cloud Security & DevOps: Advanced cloud monitoring, security hardening, operational efficiency

"Commitment to Excellence" Fueled by a passion for teamplay, data-driven cloud solutions, DevSecOps and SRE, I am eager to apply my expertise to ensure my next project not only succeeds but thrives.

Skills

Management and Soft Skills:

- Leadership: Proficient in "Coaching" and "Democratic" leadership styles.
- Corporate Finance & Lean Startup Methods
- Team Building & Outsourcing Expertise
- Team Management & Product Ownership
- Agile Processes: Experienced in Scrum, Kanban+, and SAFe methodologies.
- Communication:
 - Enhancing Effective Communication Skills for Leadership and Technical Excellence.
 - I seek to sharpen these skills further to ensure my technical insights and strategic recommendations are conveyed with maximum impact and clarity.
 - Skilled in conveying complex technical concepts to non-technical stakeholders, facilitating collaboration across diverse teams.

Cloud & DevSecOps/SRE Expertise

- Hands-On Cloud Engineering: Built and operated production environments for millions of users and terabytes of data on Azure, GCP, AWS, OpenShift, and OpenStack.
- Event-Driven & Data-Streaming Architectures: Proficient with Databricks, Spark, MapReduce, and advanced data orchestration tools to process massive data volumes in near real-time.
- Security & Automation: Deep understanding of Linux, Kubernetes, Docker, Terraform, Kustomize, Helm, Kafka, PostgreSQL, Redis, OWASP, and best security practices.
- **CI/CD & Infrastructure as Code:** Skilled in designing complex pipelines for automated builds, testing, and deployments (GitLab, Jenkins) while enforcing rigorous security and compliance standards.

Languages:

• English, German, Russian, Polish, Belarusian

Programming:

Python, JavaScript/TypeScript, Solidity, Java, Rust, Go

Most recent employment

Lead Cloud Architect

Oct 2024 – current

UBS, Zurich (via Tech Mahindra)

- **Platform Development and Facilitation:** Technical leading in the lift-and-shift migration of a heterogeneous wealth management application suite from on-premise to Azure Cloud, ensuring a streamlined transition and robust cloud adoption.
- Architectural Strategy & AKS Containerization: Prepared and delivered comprehensive slides on the advantages of containerization with Azure Kubernetes Service, detailing onboarding processes as well as strategic roadmaps for continuous integration and deployment.
- Complex CD/CI Pipelines in GitLab: Implemented multi-project pipelines that enable continuous value delivery, significantly improving development efficiency and deployment speed.
- Data Streaming Architecture: Co-developed a near real-time data-streaming solution leveraging Azure Data Factory, Databricks, and AKS microservices to orchestrate pre- and post-processing of ETL workflows for event-driven data injections.
- Full Automation & End-to-End CI/CD: Achieved complete infrastructure provisioning automation with Ansible, addressing complex testing and release management requirements to ensure consistent and reliable deployments.
- Cloud Security & Identity Management: Designed and enforced enterprise-grade security policies, integrating Azure AD authentication with OAuth2 and SAML2 for secure access management while implementing granular RBAC controls to safeguard sensitive financial data in DotNet Application (C#).

Tools: Azure, Kubernetes, Ansible, Docker, Helm, Python, C# (.NET), Java, Spring, PostgreSQL, Data Factory, Databricks, GitLab, JIRA, Confluence, Event-Driven Architecture, SSO (SAML2), OAuth2, LDAP, RBAC

Security Architect / DevOps / Cloud Engineer

2019 - Oct 2024

Swiss Re, Zurich (via Swisslinx AG)

DevSecOps platform: Design and support of Cloud infrastructure for the "IETV" platform (aka "Olympus" or IFRS Delivery project) with focus on security and architecture aspects; Apply best DevSecOps automation practices for complex microservice event-driven architecture to enable a multi-million-franc project,

mission critical to the core of the Swiss Re business.

- Advanced Continuous Integration Techniques: Implemented and managed Terraform automation within CI pipelines to enable consistent and reliable environment provisioning, ensuring infrastructure as code practices are central to the deployment strategy. Enhanced CI pipelines to bootstrap microservices using Kubernetes init-containers, which dynamically distribute environment-specific configurations, thereby reducing manual configuration errors and speeding up deployment processes.
- Microservice Security and Management: Co-designed a secure microservice architecture, utilizing Managed-IDs to ensure each service securely accesses only the Azure resources it requires, enhancing the security posture significantly. Ensured all communication between Kafka and PostgreSQL is secured with mutual TLS (mTLS), safeguarding data in transit against interception and unauthorized access (data on rest as per requirement).
- Sophisticated Data Handling and Operations: Led the deployment of Azure Data Factory and Databricks from artifact feeds, which are meticulously managed to meet stringent security and compliance standards, enabling robust data integration and analytics capabilities. Integrated complex data workflows into the DevOps cycle, ensuring that data operations are both scalable and aligned with the security frameworks.
- Release Management Strategy: Co-developed and contributed to a release management strategy based on the Bill of Materials (BOM) concept, which meticulously tracks software components used in each release. This approach ensures transparency and compliance in the deployment process, crucial for business-critical applications. Streamlined release processes by aligning them with business requirements, focusing on critical gatekeeping to ensure that only fully vetted and compliant code is deployed into production environments.
- Strategic Project Contributions: Actively contributed to the strategic planning and high-level design of cloud architecture, ensuring robust scalability, fault tolerance, and security were foundational to the project's success. Played a key role in cross-functional teams to drive the adoption of best practices in DevSecOps, influencing significant improvements in project delivery and operational efficiency.
- **Communication:** Organized and led post-mortem operational sessions to identify root causes of system failures, enhancing system reliability through continuous learning and improvement. Developed essential technical documentation and facilitated cross-team communication. Also, conducted workshops and knowledge-sharing sessions to boost collective expertise in cloud solutions and security, promoting best practices across teams (**ISO 27001, SAFe, OWASP**).

Tools: Azure, kubernetes, terraform, docker, flux, kustomize, helm, python, Java, Linux, Bash, PowerShell, Spring, postgres, Kafka, Data Factory, Databricks, JIRA, Confluence, Managed-IDs, OWASP

Multiple startups 2013 – 2019

CTO, co-founder

2018 - 2019

Crypto Real Estate AG, Zug

- Implemented the investhood.io prototype with a strong backend (SaaS API) using microservice architecture (Eureka/Netflix stack) and horizontal scalability; developed microservice user authentication and authorization (UAA) management integrated with an Angular front-end.
- Collaborated with clients and supported the CEO in business development and B2B deals; aided in the company's fundraising campaign.
- Conceptualized and developed the Management and Investment Assistant (MIA) prototype, including a 64-page technical paper.
- Supervised the development teams for the SwissRealCoin project website and Ethereum-based smart contracts.
- Completely revamped and performed full-stack development of the KYC-onboarding dashboard convertia.io; handled whitelabeling, deployment, and end-to-end support for the first B2B customers.
- Conceptualized and developed a security tokens protocol.
- Developed a strong backend (SaaS API) with horizontal scalability using microservice architecture (Eureka/Netflix stack); integrated user authentication and authorization (UAA) management with an Angular front-end.

Tools: python, Typescript, Solidity, Java, JHipster, OpenAPI, websockets, django, angular, ionic capacitor, UAA, <u>kubic-ci</u>, kubernetes, Google Cloud, Trello, DevOps

CTO 2016 – 2018

PriceHubble AG, Zurich

- Delivered the product from early MVP prototyping to successful full-scale service with multiple B2B clients, including real-estate agencies, banks, and insurance companies.
- Introduced agile processes (Kanban and Scrum) for efficient project management.
- Set up an outsourcing software development unit for rapid product-to-market delivery, achieving an alpha version within 2 months and a full product in 8 months.
- Supervised a team of 5-9 people, providing technical and security expertise.
- Oversaw architecture and integration of machine-learning data engineering into the SaaS.
- Organized and supervised DevOps by implementing continuous integration and deployment infrastructure using Kubernetes.
- Designed the back-office system for billing and user management.

Tools: python, OpenAPI, scikitlearn, AngularJS, Iuigi, Docker, kubernetes, kong, django, Google Cloud, circleci, Trello, DevOps

Supercomputers, Cloud and BigData 2011–2016

R&D software developer

2011 - 2016

University of Zurich

- building OpenStack cloud, BigData storage solutions and other Science IT projects (http://www.s3it.uzh.ch/);
- software development and research activities (http://www.imls.uzh.ch);
- design and automation of large-scale data handling, incl. network and parallel storage systems;
- workflow development of high-throughput image processing and analyses;
- organization of virtualization solutions, including cloud-based, VMWare ESXi and high-end KVM-based (also see https://github.com/ewiger/picostack);
- parallel computing, incl. High-Throughput Computing (HTC) and High-Performance Computing (HPC) using OpenStack cloud and ETHZ Brutus cluster environment;
- contribution and testing of cloud deployment and workflow management tools like elasticluster (http://gc3-uzh-ch.github.io/elasticluster/) and GC3Pie (https://gc3pie.readthedocs.org/en/latest/);
- development and publication of novel algorithms, statistical and mathematical techniques.

Tools: python, bash, Java, Javascript, PHP, C++, MATLAB, R, Julia, XFS, glusterfs, Linux, KVM, HPC, HTC, OpenStack, Google Compute Engine, Platform LSF, SLURM, CellProfiler, Machine Learning, Computer vision (image bioinformatics), Jenkins, DevOps

Education (MSc. Eng.)

2008 - 2009 Integrated Phd Program in Mathematics, Jacobs University, Bremen.

2004 - 2008 Graduate School, Belarusian State University of Informatics and Radioelectronics (BSUIR), Minsk. Faculty of Computer Networks and Systems, Department of Software and IT. (Avg: 4.5, where 5.0 is the best grading)

2004 – 2005 Master of Science in Engineering, BSUIR, Minsk. Faculty of Computer Networks and Systems, Department of Software and IT. Master ("Magister") Thesis: "Models, methods and software of Internet-based information system organization for data search and exchange" (Grade: 5.0, Avg: 4.72)

1999 – 2004 Dipl. Ing. in Software Development, BSUIR, Minsk. Faculty of Computer Networks and Systems. Department of Software and IT, Bank systems specialization. Diploma Thesis: "Content Management System" (Grade: 5.0, Avg: 4.57)

1988 – 1999 Gymnasium, Minsk

Previous hackathons, courses and honors

2016, March: SIX hackathon - Fintech, Zurich

2015, October: www.hackzurich.com - biggest hackathon in europe / team finalist with #RockMyLight

2014, December: www.venturelab.ch - fast track for startups, St. Gallen (Certificate)

2014, October: www.hackzurich.com - biggest hackathon in europe

2009, January - MPI/OpenMP workshop for supercomputers, Bremen (Certificate)

2008, January: TOEFL ibt

2004, March: Certificate of Honorary Achievement in Academic Excellence upon Graduation from University - Belarusian State University of Informatics and Radioelectronics, Minsk

2003, November: ZMP - Goethe-Institut e.V.Goethe-Institut e.V. \ Credential ID 021623

Various

- Linkedin: https://www.linkedin.com/in/yyakimovich/
- GitHub: https://github.com/ewiger
- JsModem https://github.com/ewiger/jsmodem
- Homepage: https://yauhen.vakimovich.info/cv/
- Diplomas: https://yauhen.yakimovich.info/cv/yy-diplomas.pdf (>11Mb)
- All references are available per request

Hobbies

Hiking, Chess, Mathematics

Publications

• "Multiscale Chromatin Dynamics and High Entropy in Plant iPSC Ancestors" Journal of Cell Science, May 13, 2024.

Authors: Kinga Rutowicz, Joel Lüthi, Reinoud de Groot, René Holtackers, Yauhen Yakimovich, Diana M. Dominguez, and Cris Kuhlemeier.

• "Infectio: A Generic Framework for Computational Simulation of Virus Transmission Between Cells"

mSphere, February 1, 2016.

Authors: Artur Yakimovich, Yauhen Yakimovich, Michael Schmid, Jason Mercer, Ivo F. Sbalzarini, and Urs F. Greber.

"Computer Vision for Image-Based Transcriptomics"

Methods, September 1, 2015.

Authors: Thomas Stoeger, Nico Battich, Markus D. Herrmann, Yauhen Yakimovich, and Lucas Pelkmans.

• "Rarefied Data Compression Method"

Published on January 1, 2008.

Authors: Yauhen Yakimovich