

Academic Profile

Alex Khaerov

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Research Interests

My work bridges industry practice and academic inquiry in large-scale distributed systems, focusing on the organizational and technical dimensions of cloud infrastructure at enterprise scale.

Primary Areas:

- **Platform Engineering & Internal Developer Platforms (IDPs)** — Cognitive load reduction, self-service infrastructure, developer experience optimization
- **Omni-Cloud Architecture & Multi-Cloud Governance** — Cloud-agnostic design patterns, cross-provider orchestration, vendor neutrality strategies
- **AI Infrastructure & MLOps** — Production ML/AI platforms, model deployment pipelines, GPU/accelerator orchestration
- **Cloud-Native Systems** — Kubernetes ecosystems, container orchestration, service mesh architectures
- **Infrastructure Automation & GitOps** — Declarative infrastructure, infrastructure-as-code, continuous reconciliation

Interdisciplinary Interests:

- Socio-technical systems in large-scale infrastructure organizations
- Developer Experience (DevEx) and cognitive load theory in platform design
- FinOps and cloud economic optimization at Fortune 500 scale
- Site Reliability Engineering (SRE) practices and organizational patterns

Industry-Academia Engagement:

- Prudential Global AI Lab partnerships with NUS, SMU, Republic Polytechnic, Singapore Polytechnic (2024–Present)
 - Guest lecturer in platform engineering and cloud architecture
 - Active participation in Singapore technology ecosystem (SCS, Python User Group Singapore, IEEE)
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Education

Executive Master of Business Administration (EMBA)

Quantic School of Business and Technology | 2025–2026 (Expected Oct 2026)

Focus: Strategy, Leadership, Finance, Innovation Management

Master of Engineering (M.Eng) with Honors

Povolzhskiy State University of Telecommunications and Informatics (PSUTI) | 2006–2011

Thesis: Next Generation Networks (NGN) Platform Architecture

Recognition: Best Postgraduate Student Award (2011)

Doctoral Studies (Unfinished, transitioned to industry)

PSUTI | 2011–2012

Research: Dynamic Virtual Private Network Technologies

Patents

Granted U.S. Patents (3 patents in cloud automation and platform integration):

1. [US 20180300115A1](#) — Technologies for creating and distributing integration connectors in a cloud service brokerage system (Filed: Apr 2017, Published: Oct 2018, Assignee: Ingram Micro Inc.)
2. [US 20180191718A1](#) — Technologies for securely extending cloud service APIs in a cloud service marketplace (Filed: Dec 2016, Published: Jul 2018, Assignee: Ingram Micro Inc.)
3. [US 20190132410A1](#) — System and method for integrating cloud applications into a cloud service broker platform using an automated, universal connector package (Filed: Oct 2017, Published: May 2019, Assignee: Ingram Micro Inc.)

Thematic Focus: Platform extensibility, multi-vendor integration, automation frameworks — foundational concepts applicable to contemporary Internal Developer Platform (IDP) design and omni-cloud architectures.

Publications

Academic Publications

Roslyakov A.V., Grebeshkov A.U., Vanyashin S.V., Khaerov A.A. (2012). *Multiservice Platforms of the Next Generation Networks. Volume 2: Foreign Manufacture Systems*. Samara: PSUTI Publishing. 344 pages. (Contributing author — technical analysis of international NGN platforms)

Roslyakov A.V., Kudryavceva E.N., Lysikov A.A., Khaerov A.A. (2012). "The Next Generation Network Multiservice Platform Equipment Database." *Electronic Resources*

Industry Foundation «Science and Education», Registration Certificate No. 18650, Russian Federation.

Roslyakov A.V., Kudryavceva E.N., Lysikov A.A., Khaerov A.A. (2012). "Next Generation Networks Platform's Portal." *Electronic Resources Industry Foundation «Science and Education»*, Registration Certificate No. 18651, Russian Federation.

Professional & Technical Publications

Platform Engineering & IDP Series (2024–2025):

- **Khaerov, A.** (2024). "Part 2: Why Building IDPs is a Challenging Business?" *Medium*.
<https://akhaerov.medium.com/part-2-why-building-idps-is-a-challenging-business-41112f2fb834>
Analysis of organizational, technical, and cultural barriers in Internal Developer Platform adoption at enterprise scale
- **Khaerov, A.** (2024). "Part 1: IDPs – What Comes to Your Mind?" *Medium*.
<https://akhaerov.medium.com/part-1-idps-what-comes-to-your-mind-3127269b2a6e>
Conceptual framework for understanding platform engineering value propositions and IDP design patterns
- **Khaerov, A.** (2025). "What Fast-Food Order Screens Can Teach Us About Broken Observability" *Medium* (pending publication)
User experience design patterns in observability platforms, drawing parallels from consumer technology

Cloud Infrastructure & Security (2019–2020):

- **Khaerov, A.** (2020). "Could Containers be Secured?" *Habr*.
- **Khaerov, A.** (2019). "Helm Security" *Habr*.
- **Khaerov, A.** (2019). "Public and Private Smart Contracts with JP Morgan Quorum" *Habr*.

- Khaerov, A. (2024). "Comparison of UFW, iptables, and nftables on Alpine Linux" *Medium*.

Publication Metrics: 15+ technical articles, cumulative 50,000+ views (2011–2025)

Platforms: [Medium](#), [Habr](#), [SpeakerDeck](#)

Conference Presentations

Selected Talks (14 presentations, 2019–2025):

HashiDays 2025 Singapore | Leadership Track

"Anatomy of Self-Service Enterprise Infrastructure Platforms"

IDP design patterns, developer cognitive load reduction, omni-cloud self-service enablement

Cloud Expo Asia 2024 | Singapore (TechWeek Singapore)

"GenAI Adoption Path for Self-Services & Internal Developer Platforms"

AI integration in platform engineering workflows, Prudential AI Lab case study

Bay Area Cloud Native Infrastructure Meetup 2022 | San Mateo, California

"Facilitating and Simplifying AIOps Platform Adoption with Chaos Mesh"

Chaos engineering methodologies, observability, reliability engineering

FOSSASIA Summit 2020 | Singapore

"Cloud-Native Pipelines with Tekton" (2-hour hands-on workshop, 40+ participants)

Kubernetes User Group Singapore 2023

"Terraform and ArgoCD: Managing Kubernetes Lifecycle"

GitOps workflows, declarative infrastructure, cluster lifecycle management

Geographic Reach: Singapore, United States, Russian Federation

Audience Types: Industry practitioners, technology leaders, open-source developers

[View complete speaking history →](#)

Professional Experience

Director, Head of GTIS Cloud

Prudential plc | Singapore | Dec 2019 – Present

Leading omni-cloud infrastructure platforms (Microsoft Azure, Google Cloud Platform) serving 15,000+ employees across 12 Asia-Africa markets. GTIS (Group Technology & Innovation Solutions) Cloud encompasses global cloud operations, AI platforms, and developer experience.

Key Initiatives:

- **Prudential Global AI Lab Foundation** (2024) — Technical architect for Singapore AI research hub in partnership with Google Cloud and Singapore MDDI, facilitating collaboration with NUS, SMU, Republic Polytechnic, Singapore Polytechnic.
- **Enterprise IDP Transformation** — Architected unified Internal Developer Platform serving 12 markets using Backstage (Spotify), GitOps (ArgoCD, Terraform), infrastructure self-service portals.

Outcomes: 99.85% platform availability, 15% infrastructure cost optimization, 12-country geographic reach, 15,000 users enabled.

Software Engineering Manager

Chainstack (Acronis spin-off) | Singapore | Sep 2018 – Dec 2019

Led infrastructure engineering for blockchain-as-a-service platform. Delivered omni-cloud blockchain infrastructure (GCP, AWS, Azure) from concept to production in 9 months.

Recognition: Featured in Google Cloud customer case study (2019) — “Chainstack: Making blockchain work for enterprises and developers with Google Cloud”

<https://cloud.google.com/customers/chainstack>

Software Engineering Unit Manager

Ingram Micro Cloud (now CloudBlue) | Moscow, Russian Federation | Dec 2015 – Sep 2018

Managed 35-engineer organization responsible for CloudBlue Connect platform.
Generated 3 U.S. patents in cloud service automation.

Press: <https://ir.ingrammicro.com/press-releases/detail/173/>

Industry Advisory & Leadership

HashiCorp Customer Advisory Board (E-CAB) — Singapore Representative | 2023–Present

Strategic advisor on product roadmap for Terraform, Vault, Consul at enterprise scale.
Board composition includes senior leaders from Singapore government agencies (CSIT, HTX, DSTA) and Fortune 500 enterprises.

Google Cloud Innovators Program | 2022–Present

Community leader and technical expert in GCP ecosystem. Profile:

<https://g.dev/khaerov>

Professional Society Memberships:

- Singapore Computer Society (SCS) — Professional Member #33685 (2020–Present)
 - Python User Group Singapore — Voting Member (2019–Present)
 - IEEE Computer Society — Member #96513498 (2016–Present)
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Certifications

- Google Cloud Professional Cloud Architect (Valid: Mar 2023 – Mar 2025)
 - Google Cloud Professional Cloud Security Engineer (Valid: Jun 2023 – Jun 2025)
 - Google Cloud Associate Cloud Engineer (Valid: Sep 2022 – Sep 2025)
 - Certified Calico Operator: Level 1 (Tigera, No Expiration)
 - Cisco Certified Network Associate (CCNA)
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Open Source Contributions

Primary Maintainer:

[helm-gcs](#) — Google Cloud Storage plugin for Helm chart repositories (285★, 72 forks, active maintenance)

Community Contributions:

- **Terraform:** #418 global contributor ranking (OSSRank)
- **Kubernetes Documentation:** Corrections, examples, guides
- **Microsoft Azure Documentation:** AKS, Terraform on Azure
- **Chaos Mesh:** CNCF project contributions

GitHub Profile: <https://github.com/hayorov>

OSSRank: #188,485 globally among all open-source contributors (66,809 points)

Media Coverage

Prudential Global AI Lab Launch (2024)

Press Release: "Prudential officially launches global AI Lab in Singapore" (Nov 19,

2024, Ministerial participation — Singapore MDDI)

<https://www.prudentialplc.com/about/newsroom/press-release/2024/prudential-officially-launches-global-ai-lab-in-singapore>

Chainstack – Google Cloud Case Study (2019)

<https://cloud.google.com/customers/chainstack>

Ingram Micro Cloud Platform Launch (2018)

<https://ir.ingrammicro.com/press-releases/detail/173/>

Technical Expertise

Cloud Platforms: Omni-cloud architecture (Azure, GCP, AWS)

Container Orchestration: Kubernetes, Docker, OpenShift, Helm

Infrastructure-as-Code: Terraform, Terragrunt, Ansible, Pulumi

Programming: Python (Django, Flask), Go, JavaScript, Shell scripting

CI/CD & GitOps: ArgoCD, Tekton, GitHub Actions, GitLab CI

Developer Platforms: Backstage (Spotify IDP), platform engineering tools

Observability: Grafana, Prometheus, ELK Stack

AI/ML Infrastructure: Azure AI Foundry, Google Vertex AI, MLOps platforms

Methodologies: SRE, DevOps, Platform Engineering, FinOps, Agile

Languages: English (professional fluency), Russian (native)

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Last Updated: May 2026