Ihar Hrachyshka / Principal Software Engineer

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Keywords: Networking, SDN, Cloud Infra, Linux, Python, C, Golang, Open vSwitch, OpenStack, KubeVirt, Open Source, GenAI, Nix.

> ✏️ At a Glance
>
> **Senior System Software engineer** with extensive **leadership** experience, including **open source** community management. I build **Cloud infrastructure** services, with primary focus on **Networking layer.** Currently exploring the world of **GenAI training** infrastructure. I consider **remote** positions only.

🐧 Principal Software Engineer @ Red Hat, Inc.

2013 – Present // Charlotte, NC // Fremont, CA // Brno, Czech Republic

> ✏️ In Brief
>
> **Broad contributions** to Hybrid Cloud portfolio across **multiple products,** including [OpenStack](.) Networking (Neutron), [OpenShift Virtualization](.) (KubeVirt), [OVN](.) (Open vSwitch), and [Red Hat AI](.) (InstructLab, Llama Stack).
>
> Proven **leadership** in open-source projects. Currently serving as a **maintainer** for InstructLab, the foundation of RHEL AI's GenAI capabilities. Experienced **speaker** in technical forums.
>
> **Core member** of the OpenStack Networking group. In early 2025, I transitioned to Red Hat AI org where I focus on its **enterprise readiness.**

RHEL AI // 2025 – Present

> ✏️ Role
>
> **Core team member.** Upstream maintainer for [InstructLab](.), a LLM fine-tuning toolkit. Miscellaneous contributions in the GenAI orchestration space.

In addition to InstructLab, I currently [work](.) with **Llama Stack** community, focusing on its enterprise readiness and integration into future Red Hat products.

OpenStack Networking (Neutron) // 2013 – 2025

> ✏️ Role
>
> [Top core contributor](#). Trusted engineering voice. Led project teams. (👥)

- Introduced the [network QoS API](#). (👥)
- Partial **upgrades** with **no downtime** using a new [RPC versioning layer](#). (👥)
- Fixed **MTU handling** for heterogeneous network types. ([talk](#))
- Served as a **liaison to adjacent projects,** representing OpenStack's interests.

Migrated OpenStack Networking services to [new deployment platform](#) (Kubernetes, Ansible). (👥) **Network Observability strategy** for OpenStack data plane.

Open vSwitch and OVN // 2019–2022

> ✏️ Role
>
> OpenStack **liaison** to the project. Delivering **feature parity** with legacy networking solutions, which enabled **complete platform migration** to the new SDN backend. Close **collaboration** with the core team. Building **cross-org** trust.

- [VXLAN support](#) enabling encapsulation offload for legacy NICs.
- [Stateless ACLs](#) improving **throughput** (**10%+;** more in DPDK environments).
- Reduced **network downtime** for VM live migration from **~10s to ~0.5s** using [novel packet cloning approach](#) and [dynamic MTU control with ICMP messages](#). ([talk](#))
- Implemented [virtual OVN chassis co-location](#), **enabling hybrid workloads.**
- Integrated *scapy* into [test suite](#), **improving coverage and correctness.** ([talk](#))
- Multiple functional [QinQ enhancements](#).

KubeVirt // 2018–2019

> ✏️ Role
>
> [Lent](#) my SDN experience to the nascent project. Focused on functional enablement as well as security surface reduction.

- [Multi-network connectivity support](#) using Multus CNI.
- [Integrated](#) SR-IOV CNI for high-throughput workloads.
- [Tightened](#) [container capabilities](#) to reduce risk surface.
- [Disconnected VMs](#).

📶 Lead Software Engineer @ EPAM Systems

2007 – 2012 // Minsk, Belarus

✏️ In Brief

I started as a Software Engineer and **quickly advanced** to Senior and Lead roles. Primarily worked for **[Infoblox](#)**, becoming an integral part of the core team.

• Contributed to **synchronization layer** for their custom database.
• Implemented key components for [DNSSEC](#) zone signing; integration with [Active Directory zones](#); [IPv6 support](#), including developing testing infrastructure.

Also briefly worked on an internal **Linux embedded** multimedia project.

🥫 Software Engineer @ Promwad

2006 — 2007 // Minsk, Belarus

✏️ In Brief

Embedded Linux engineer working closely with the **hardware team.**

Hardware platform enablement in kernel and distributions. Kernel drivers for custom hardware (graphics, GPIO, ...). Core system services bring-up.

🧪 Quality Engineer @ Velesys

2005 — 2006 // Minsk, Belarus

✏️ In Brief

Quality Engineer specializing in manual **testing for hardware solutions,** including NAS and kiosks. Wrote test plans and scripts; handled onboarding.

🎓 Education

Minsk Higher State Radio Engineering College

2003 — 2008 // Minsk, Belarus: BSc in Computer Science and Pedagogy.

📝 Other Notes

- **I love my craft.** I know my way with **Unix systems.**
- I'm a **NixOS maintainer** (Darwin team). I know Nix technologies.
- **Languages:** English, Belarusian, Russian; limited: Czech, Polish, Ukrainian.