Jim Rollenhagen

Software Developer

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CAREER PROFILE

I am a software developer that enjoys designing, building, and operating large-scale software systems. I've primarily worked in Python and Go, but am happy working in all sorts of tech stacks. I'm not afraid of the frontend, but backend development and cloud infrastructure is where my skills truly shine.

When I'm not writing code, I am an enabler in every sense of the word, acting as a force multiplier for the people around me. I tear through political blockers, and anything else in the way, to allow people around me to solve real problems.

EXPERIENCE

Okta - *Principal Software Engineer, Team Lead*

2021 - now

- Served as team lead for Advanced Server Access core team, responsible for frameworks, infrastructure, performance, observability, deployments, and security.
- Designed and built "cells" infrastructure, reducing failure domain and enabling horizontal scale.
- Built integration with Okta platform to seamlessly onboard Okta users into ASA.
- Led migration from containers running on EC2 instances to EKS, reducing operational toil and effort to deploy new services.

Verizon Media (formerly Oath) - *Senior Principal Software Engineer*

2017 - 2021

- Led architecture and technical direction for OpenStack team managing tens of clusters with over four million CPU cores.
- Migrated control planes to container-based deployments, increasing safety and speed of deployments.
- Worked with community to upstream a number of in-house features in Ironic and Nova, reducing maintenance costs.
- Designed and built 5G MEC infrastructure platform, based on OpenStack, to bring ultra-low latency applications closer to consumers.

OpenStack - *Technical Committee Member*

2019 - 2020

- The OpenStack Technical Committee is one of the governing bodies of the OpenStack project. It is an elected group that represents the contributors to the project, and has oversight on all technical matters.

OpenStack Ironic - *Project Team Lead and Core Reviewer*

2014 - 2020

- Served as Project Team Lead (PTL) for Mitaka, Newton, and Ocata development cycles. Set roadmap and priorities. Team increased commit frequency by 20% from Mitaka to Newton, and 60% from Newton to Ocata.
- Served as core reviewer, approving code since summer 2014.
- Managed code releases since Liberty cycle, and changed release model from “every 6 months” to “when there’s good code to release”, typically 1-2 months.
- Led architecture of multi-tenant networking features, giving users private networking capabilities and integration with software networking systems.
- Led development and integration for the “agent” deploy driver, offering a more scalable and less error-prone deployment method.
- Developed high availability capabilities for the Ironic driver running in the nova-compute service.
- Worked with the Nova team to improve how scheduling works for Ironic instances.
- Repaired broken relationships with the Nova project team, leading to better collaboration between the teams.

FarmLogs - *Senior Software Engineer*

2017

- Built a grain marketing feature from scratch that allows farmers to optimize how they sell their crops.
- Drove change to make the engineering team remote-first, leading to better collaboration, hiring more talent, and happier engineers.
- Built a crop planner feature that helps farmers plan their year ahead of time and optimize expenses and activities.
- Helped plan and roll out a new architecture for our CI/CD pipeline based on Kubernetes and Helm, to enable deployments for every commit for every microservice.
- Re-worked how our auth service handles email and rabbit connections, making many actions less fragile.

Rackspace Hosting - *Senior Software Developer*

2013 - 2017

- Worked primarily upstream on OpenStack Ironic as Project Team Lead and core reviewer.
- Served as Tech Lead for the Ironic project within the OpenStack Innovation Center, leading planning efforts and guiding other team members.
- Built and operated OnMetal, one of the first public cloud bare metal provisioning products. OnMetal provisions servers in minutes, thousands of times every day.
- Planned, architected, built, and operated OnMetal v2, adding software networking features, storage connections, Windows support, and RAID 1 boot devices to OnMetal.
- Implemented zero-downtime upgrades for the OnMetal products, allowing our team to go from monthly deploys to multiple deploys per week.
- Mentored teammates to help them grow as engineers.
- Jumped in to help other teams with technical problems when needed.

ZeroCater - *Software Engineer*

2013

drchrono - *Software Engineer*

2013

General Motors - *Software Engineer*

2011 - 2012

EDUCATION

Kettering University - *BS in Computer Engineering*

2005 - 2011

Minor in Computer Science

PROJECTS

My open source work is primarily around OpenStack, in a few different projects.

- Ironic - Ironic's mission is to produce an OpenStack service and associated libraries capable of managing and provisioning physical machines, and to do this in a security-aware and fault-tolerant manner. https://github.com/openstack/ironic
- Nova - Nova's mission is to implement services and associated libraries to provide massively scalable, on demand, self service access to compute resources, including bare metal, virtual machines, and containers. https://github.com/openstack/nova