Ivan Minčík - @imincik, DevOps Engineer

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Education

- Master's degree, Geographical Information Systems at Matej Bel University, Faculty of Natural Science in Banská Bystrica, Slovakia (2001-2006)

Technology Stack

- Git, Mercurial, SVN, GitHub
- Make, CMake
- GDAL, PROJ, QGIS, PostgreSQL/PostGIS, Django
- Python, Nix, Bash
- Debian/Ubuntu, NixOS
- Ansible
- Amazon Web Services (AWS)
- Docker, Podman, Nomad, Vagrant
- GitHub Actions, Jenkins, TravisCI
- Elasticsearch, Logstash, Grafana, Nagios

Open Source communities

- Linux user since 1999
- OSGeo member since 2010
- OSGeo Charter member since 2014
- NixOS/Nixpkgs contributor since 2021

Languages

- Slovak
- English

Self employed DevOps Engineer

Period: September 2022 - now

Development of networking, server and desktop infrastructure using Nix and NixOS. Started Nix Geospatial team, Geonix project and participated in Summer of Nix program.

Summer of Nix

- Period: August 2023 - September 2023
- Description: paid Nix training and work program organized by NixOS Foundation and NLNet
- Responsibility: development

- Technologies: Nixpkgs, Nix, Nix Flakes
- URL: https://summer.nixos.org

NixOS based desktop and server solution for medical offices

- Period: September 2022 - now
- Description: NixOS based networking, server and desktop solution for medical offices
- Responsibility: design, development and deployment
- Technologies: NixOS, Nix, Nix Flakes

Geonix

- Period: October 2022 - now
- Description: cross-platform geospatial packages distribution and development environment
- Responsibility: project founder, design, development
- Technologies: Nixpkgs, Nix, Nix Flakes
- URL: https://github.com/imincik/geonix

Geospatial IT Solutions Architect,

DevOps Engineer,

Data Services Development Team Manager

at Land Information New Zealand

Period: March 2016 - September 2022

My main responsibility was to improve design and implementation of LINZ's core data storage and data publishing infrastructure and help with transition of its software development culture in to a modern agile DevOps practices. As part of this job, I also improved many soft skills like communication and people management in government environment and multinational development teams.

BDE Processor

- Period: March 2016 - September 2022
- Description: New Zealand's cadastral data publishing system
- Responsibility: redesign, development, migration to AWS, maintenance
- Technologies: Perl, Bash, Python, PostgreSQL, PL/PgSQL, AWS (S3, EC2, RDS, Lambda), Nix

LINZ Geostore

- Period: January 2020 - December 2021
- Description: LINZ's central storage for geospatial data
- Responsibility: design, development
- Technologies: Python, AWS (S3, Step Functions, Lambda), Nix

LINZ AWS Direct Connect

- Period: 2016
- Description: private network connection between LINZ's on-premise data centers and AWS

- Responsibility: design, development, deployment
- Technologies: AWS (Direct Connect)

Self employed GIS Consultant and DevOps Engineer

Period: September 2014 - December 2015

Geospatial technologies consulting services for multiple companies.

Company founder and CTO at GISTA

Period: February 2008 - September 2014

I started GISTA company with goal to introduce digital mapping in government organizations and municipalities in Slovakia. I designed and implemented database models, data transformation and data processing tools for geospatial data in Slovakia. I also designed web mapping interfaces for end users. Software from GISTA was successfully used in all large cities in Slovakia and in most of the middle size cities and towns.

GIS.lab Web NG

- Period: December 2015 - March 2016
- Description: new generation web and mobile maps publishing system based on QGIS
- Responsibility: project founder, project management, development
- Technologies: QGIS, OpenLayers 3, AngularJS, NodeJS, Onsen, Cordova, Django

Linux based desktop and server solution for medical offices

- Period: August 2015
- Description: centrally managed, maintenance-free desktop solution for medical offices. Integration with other various medical applications and services.
- Responsibility: design, development and deployment
- Technologies: GIS.lab, Ubuntu Linux, VMware ESXi, Windows Server 2008

GIS.lab Open Source project

- Period: September 2013 - March 2016
- Description: GIS.lab is a free system for instant deployment of complete geospatial cluster with desktop, web and mobile client interfaces.
- Responsibility: project founder, lead developer
- URL: http://web.gislab.io

Spatial database management system for GISPLAN

- Period: January 2010 - December 2010
- Description: system for geospatial data and metadata storage and history management
- Responsibility: design, development
- Technologies: PostgreSQL/PostGIS, PL/PgSQL, PL/Python, Django

GISPLAN Modeler project

- Period: November 2009 - December 2012
- Description: framework for interactive geospatial analysis in web application using Web Processing Services
- Responsibility: project lead, design, development
- Technologies: PostgreSQL/PostGIS, Python, Django, jQuery, jQuery UI
- Project founder: Slovak Research and Development Agency

Geospatial solutions for local government

- Period: January 2009 - December 2014
- Description: more than 50 specialized solutions for local government in Slovakia
- Responsibility: design, database model, map rendering, data import and conversion tools, deployment
- Technologies: GISPLAN, Python

Cloud service orchestration and management system for GISPLAN

- Period: September 2009 - August 2010
- Description: tools for GISPLAN services orchestration and management in Amazon AWS cloud environment
- Responsibility: design, development
- Technologies: Bash, Python, Fabric

Web mapping framework GISPLAN

- Period: September 2008 - December 2010
- Description: web mapping framework with user friendly web administration
- Responsibility: project lead, design, development
- Technologies: PostgreSQL/PostGIS, UMN Mapserver, Python, Django, jQuery, jQuery UI

Self employed Geospatial Solutions Developer

Period: May 2000 - February 2008

I designed and implemented web mapping solutions for national cadastral data and register of drainage and irrigation and multiple small geospatial data collection and transformation tools.

Cadastral data information system

- Period: January 2007 - December 2007
- Description: tools for data import, storage, visualization and querying of data provided by Slovak Cartography and Cadastral Authority
- Responsibility: design, database model, map rendering, development, deployment
- Technologies: PostgreSQL/PostGIS, Python, UMN Mapserver

National register of drainage and irrigation

- Period: January 2006 - December 2006
- Description: complete Open Source geospatial solution for Slovak Authority for Drainage and Irrigation Management with web client interface and OWS services support

- Responsibility: design, database model, map rendering, deployment
- Technologies: PostgreSQL/PostGIS, UMN Mapserver, PHP, p.mapper