Lorenzo Manacorda

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Skills

Fields of experience	Infrastructure as code – Observability – Functional programming – Formal verification
Tools and languages	NixOS – Terraform – Nomad – Kubernetes – Prometheus – Alertmanager – Grafana – Nix – Go – Rust – Python
Communication	Italian (native) – English (advanced) – Spanish (advanced) – German (medium) – French (basic)

Experience

Symbolic Capital Partners — *Software Engineer*   Jul. 2022 - Jul. 2024

- I was tasked with re-factoring the company's observability, monitoring and alerting infrastructure; using Python as a configuration language and deploying to the container orchestration platform. Challenges included gathering requirements from different stakeholders, implementing a solution that worked across legacy and containerized infrastructure, and architecting a secure, modular and performant monitoring solution.
- Identified problematic Prometheus metrics and provided advice on how to fix them.
- Packaged proprietary and open-source tools with Nix, and provided assistance to other developers.
- Created internal Nix packaging abstraction libraries.
- Implemented a Nix-based CI flow, using S3 as a binary cache, saving massive amounts of developer time

Centrifuge — *Infrastructure Engineer*   Jul. 2021 - Jul. 2022

- Designed and implemented a declarative Kubernetes monitoring infrastructure using Jsonnet, allowing for fully reproducible, declarative, modular deployments of Grafana with dashboards, Prometheus with rules, alertmanager with alerts.
- Converted the existing cloud infrastructure to use Terraform
- Packaged several internal tools with Nix.
- Served as the company's point person for Nix, gave internal talks about it, and liaised with the wider Nix community

MakerDAO — *Smart Contract Engineer*   2019 - 2020

- Implementation of smart contracts for Multi-Collateral DAI, one of the leading stablecoins in the Ethereum ecosystem
- Worked on the company's Nix infrastructure: packaging, development of internal libraries, support for other team members

DappHub — *Formal Verification Engineer*   2018 - 2020

- Formal verification of smart contracts for UniSwap, the leading decentralized exchange, using the K framework
- Development and maintenance of the dapptools suite of free-software tools for smart contract development

Kinvolk — *Software Engineer*   2016 - 2018

- Implementation of Kubernetes operators for clients, including Chef and Giant Swarm
- Added eBPF support to the WeaveScope monitoring tool

SoundCloud — *API team intern*   2014

- Worked on Ruby on Rails REST API

Personal projects

- I'm enthusiastically involved with the NixOS project. I am a member of the RFC Steering Committee; a former member of the Documentation Team; a nixpkgs committer and maintainer as well as a participant in numerous online and in-person (NixCon) conversations.

- I am currently developing nixpkgs-update-notifier, a bot that allows users to subscribe, via Matrix, to build failure notificaitons of the nixpkgs-update bot. The idea is to eventually upstream this into the bot itself, and one day add this functionality to the official CI of the NixOS project (Hydra) as well.

- try_elixir, an online Elixir REPL.

- Organized privacy workshops for activists, journalists.

Education

Master in Political Ecology, Degrowth and Environmental Justice — Universitat Autònoma de Barcelona   Sep. 2023 - Mar. 2024

BSc in Computer Science — Università di Bologna   2005-2010