

# Neven Miculinić

DEVOPS & SYSTEMS ENGINEER

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## Education

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### Faculty of Electrical Engineering and Computing (FER), University of Zagreb

Zagreb, Croatia

BACHELOR IN COMPUTER SCIENCE

2013-2016

MASTER IN COMPUTER SCIENCE

2016-2018

### CNCF

CERTIFICATED KUBERNETES ADMINISTRATOR(CKA)

January 2019

## Experience

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## WORK

### grid.ai

remote

SOFTWARE ENGINEER

October 2020 – December 2020

SENIOR SOFTWARE ENGINEER

Jan 2021 – present

- Various backend, infrastructure, and operational work

### Kubermatic (formely Loodse)

remote

SOFTWARE ENGINEER

Jun 2019 – October 2020

- Implemented, designed, and debugged various features within the [KubeCarrier](#)
- Wrote kubernetes operators, API extension server, painfully debugged both. Wrote small go utility wrapping telepresence + IDE task generation for effective microservice debugging within kubernetes. And that's not all!
- Transferred knowledge to fellow team members (e.g. recently how to setup kind with audit logging and using jq to effectively parse logs /debug operators)
- Researched formal model checkers application for the project (specifically TLA+), held internal talk on it
- Performed most infra work on our ex-CI concourse, and setup e2e tests/logging/etc. in our current CI, prow

### Kraken systems

Zagreb, HR

DEVOPS

Otc 2018 – Jun 2019

- Migrated multiple projects to Kubernetes on AWS and Bare metal
- Writing CI/CD pipeline in gitlab (( plus deploying gitlab on kubernetes ))
- Integrating wireguard as network solution for kubernetes. for IoT use cases. Wrote ansible bootstrap script for wireguard CNI and wireguard kubernetes operator.
- Implemented observability toolset on existing microservices, including log aggregation and processing (ELK), metrics & alarms (Prometheus + alertmanger) and tracing (Optracing, Jaeger)
- Wrote wireguard VPN CNI ansible configuration, wg-quick go clone, and wg kubernetes operator for managing wireguard VPN private/public keys

### Ozone platform, «small start up»

Zagreb, HR

CTO

July 2017 – Sept 2018

- Developed real time crypto-currency trading bot, overseeing, developing, and implementing algorithms, monitoring, and fine tuning the system
- Selected all appropriate technology for each system component and selected software architecture
- Using dockerized micro-services architecture written in Python & Go, deployed on GKE with kubernetes. Monitored using prometheus, stack-driver and grafana

## INTERNSHIP

### Facebook, Inc.

London, UK

SOFTWARE ENGINEERING INTERN

Summer 2015

- worked at Site Integrity fighting spam, specifically URL spam via machine learning
- Used Haskell and PHP(Hack) plus Hive, Presto, Python and HiveQL
- Connected internal systems and built Machine learning pipeline

## PROJECTS

- Developing machine learning model to read MinION raw sequencing data and generate resulting DNA sequence. Trained in distributed fashion on multiple GPU and nodes.
- Paper published on Deep Learning for precision medicine 2017 conference, part of ECML PKDD 2017
- Wrote master thesis on this project with further work
- [source code](#)

## COMPETITIONS

**2006–2014** Competed in math, physics and algorithmic competition

**2012** 3rd place on national competition in algorithms

**2010–2014** Ranked among top 5 in respective category in HONI(COCI)

Member of [spoj](http://www.spoj.com/users/nmiculinic/) <http://www.spoj.com/users/nmiculinic/> and [codeforces](http://codeforces.com/profile/lpp_) [http://codeforces.com/profile/lpp\\_](http://codeforces.com/profile/lpp_).

## Skills

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**Programming** Go (3+ years), C/C++(age 12- 20ish non-professionally), Python, Dart, Rust, Haskell, Java, SQL, Git,  $\LaTeX$

**Topics** Algorithms, Data structures, CI/CD (Gitlab, Google cloud build, Concourse, Prow), Cloud platform (GCE, AWS), distributed systems(organized Zagreb's distributed systems group), kubernetes, Linux, Terraform, Ansible

**Machine learning** Tensorflow, keras, numpy, pandas, seaborn, plotly, matplotlib

## Other

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**2017–present** Active member of local Go meetup

**2018–2020** Organizing local Distributed systems meetup

**2013–2017** [BEST](#) (Board of European Students of Technology) alumnae

**2015–2017** [ESN - Erasmus student network](#) member and ESN student buddy

## PRESENTATIONS

**Kubecon 2020 North America** [Kubernetes Operators: Safety First Through Model Checkers](#)

**Container days 2019 Hamburg** What does the kubelet say?

**GoDays 2019 Berlin, Gophercon Russia 2019** Golang's race detection talk

**Webcamp 2018, Zagreb** Pragmatic tracing talk

**DORS/CLUC 2018, Zagreb** Kubernetes workshop