VLADIMIR NIKOLIĆ

⚲ Vancouver, Canada ✉ vladlich@protonmail.com ⌨ github.com/schutzekatze

SKILLS

BIOINFORMATICS

Genome Assembly★
Variant Calling
Illumina, Linked Reads

SYSTEMS & EMBEDDED

Linux★, Bash★
Arduino, Raspberry Pi, STM32
Computer Architecture
Basic Electronics

DATA SCIENCE

Deep Learning, Tensorflow
Computer Vision, OpenCV
Python★, R
SQL, PostgreSQL

HIGH PERFORMANCE

C★, C++★, Rust
SLURM
Large Datasets

WEB & MOBILE

Django, Flask
HTML, CSS, JavaScript
Bootstrap, jQuery
Java, Android

LANGUAGES

Serbian *(Native speaker)*
English *(Fluent,
IELTS 8 / CEFR C1)*
German *(Basic)*

★ Proficient

EDUCATION

M.Sc. in Bioinformatics   Vancouver, Canada
University of British Columbia (ubc.ca)   Winter 2018 – Spring 2021
   Grade Avg: 88.3%, Thesis:
   "Scalable methods for improving genome assemblies"
   NSERC-CREATE scholarship awardee

B.Sc. in Software Engineering   Belgrade, Serbia
University of Belgrade (etf.bg.ac.rs)   Autumn 2013 – Spring 2018
   CGPA: 9.54/10.00, Thesis:
   "Cloudiness Estimation using Convolutional Neural Networks"

WORK & RESEARCH EXPERIENCE

Intern   Belgrade, Serbia
Institute of Physics Belgrade Innovation Centre (ic.ipb.ac.rs)   Spring 2018, Autumn 2018
   Devised and implemented a custom visual pattern comparison algorithm
   for the Teslagram project.

Co-founder   Belgrade, Serbia
Startup, Medici Project   Autumn 2017 – Spring 2018
   Attempted and failed a startup due to team's diverging future plans. The
   idea was to create a personalized assistant for every day financial tasks.

PUBLICATIONS & CONFERENCE PROCEEDINGS

**ntJoin: Fast and lightweight assembly-guided scaffolding using minimizer   Spring 2020
graphs**
Bioinformatics (academic.oup.com/...)
   Coombe L, **Nikolić V**, Chu J, Birol I, Warren R

Automation of a meteor video network   Pezinok-Modra, Slovakia
International Meteor Conference 2018 Proceedings (imo.net/...)   Summer 2018
   Nikolić V, Golubović S

Cloudiness estimation for video meteor observations   Petnica, Serbia
International Meteor Conference 2017 Proceedings (imo.net/...)   Autumn 2017
   Nikolić V, Schröder L, Tešić A

Developer Spring 2017 – present
Personal Project, Arch Setup (github.com/...)
   A set of Bash scripts that automate the setup of various Arch Linux
   components to make it functional and user friendly.

Developer Autumn 2017 – present
Personal Project, Meteor Notebook (play.google.com/...
   An Android application that aids visual meteor observations. Adjusted
   not to distract at night time and to help later data analysis.

Club member Vancouver, Canada
UBC Orbit (ubcorbit.com) Winter 2018 – Autumn 2019
   Member of the UBC Orbit student club whose mission is to build and
   launch a cubesat capable of capturing images of Earth.

Participant Ostrava, Czech Republic
PRACE Summer of HPC (summerofhpc.prace-ri.eu) Summer 2018
   Improved the performance of one of the genome assembling stages of
   the ABySS assembler (github.com/...) with the use of OpenMP and MPI.

Contributor Autumn 2017 – Summer 2018
Open Source, Meteorflux (meteorflux.org)
   An open source project by the International Meteor Organization for
   analysing meteor shower activity. I lead a team of volunteers from
   Petnica Meteor Group that fixes bugs and adds additional features.

Participant Petnica, Serbia
Petnica Summer Institute Machine Learning 2017 (psiml.petnica.rs) Autumn 2017 – Spring 2018
   Made All Sky Cloudiness Estimator Project (github.com/...) software
   package that outlines night sky clouds in All Sky images for the purposes
   of video meteor observations.
   Presented at International Meteor Conference 2017.
   Awarded 3rd place on IEEESTEC - 10th International Students Projects
   Conference.

Member of the local organizing committee Petnica, Serbia
International Meteor Conference 2017 (imo.net/...) Autumn 2017
   Helped organize the conference, introduce attendees, and provide
   technical support.

Participant Petnica, Serbia
Petnica Meteor Astronomy Summer School (meteori.rs) Summer 2017
   Learned about meteor astronomy and visual meteor observation.
   Implemented a 3D physics simulation in C++ and its visualization in
   Python of ballistic aggregation.

Engineering Team Member Belgrade, Serbia
University of Belgrade (etf.bg.ac.rs), *Mewps Project* Autumn 2016 – Spring 2017
   A robot platform that utilizes Raspberry Pi and Arduino. Capable of
   tracing and moving towards sound sources.
   Originally a hobby project, later supervised by my microprocessor
   systems professor Saša Stojanović.

Participant Belgrade, Serbia
EDIT Summer School 2016 (edit.world) Summer 2016
   Made an augmented reality Android app that is capable of rendering 3D
   models of preset textbook pictures as they apprear on the camera.
   Awarded as the best participant.

Student Demonstrator Belgrade, Serbia
University of Belgrade (etf.bg.ac.rs) Autumn 2014 – Autumn 2017
   Overseeing laboratory practices and grading students' assignments.

Student Mentor Belgrade, Serbia
University of Belgrade (etf.bg.ac.rs) Autumn 2015 – Autumn 2016

Introducing and helping out freshmen with university's organization and classes.

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INTERESTS & HOBBIES

Nature & Urban Exploring • Rock climbing • Parkour • Snowboarding • Soft Martial Arts • Meteor Observation