

VLADIMIR NIKOLIĆ

📍 Vancouver, Canada ✉ vladlich@protonmail.com 🌐 github.com/schutzekatzte

SKILLS

BIOINFORMATICS

Genome Assembly★
Variant Calling
Illumina, Linked Reads

SYSTEMS & LOW LEVEL

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

University of British Columbia, Faculty of Science (ubc.ca)

MSc in Bioinformatics

Expected graduation: Spring 2021

Vancouver, Canada

Winter 2018 – present

University of Belgrade, School of Electrical Engineering (etf.bg.ac.rs)

BSc in Software Engineering

CGPA: 9.54/10.00, Thesis:

"Cloudiness Estimation using Convolutional Neural Networks".

Belgrade, Serbia

Autumn 2013 – Spring 2018

PUBLICATIONS & CONFERENCE PROCEEDINGS

International Meteor Conference 2018 Proceedings (imo.net/...)

"Automation of a meteor video network"

Nikolić, V; Golubović, S;

Pezinok-Modra, Slovakia

Summer 2018

International Meteor Conference 2017 Proceedings (imo.net/...)

"Cloudiness estimation for video meteor observations"

Nikolić, V; Schröder, L; Tešić, A;

Petnica, Serbia

Autumn 2017

WORK & RESEARCH EXPERIENCE

Institute of Physics Belgrade Innovation Centre (ic.ipb.ac.rs)

Internship, Teslagram Project

(Computer Vision, OpenCV, C++, High Performance Computing)

Devised and implemented a custom visual pattern comparison algorithm.

Belgrade, Serbia

Spring 2018, Autumn 2018

PRACE Summer of HPC (summerofhpc.prace-ri.eu)

Summer school, ABySS Assembler (github.com/...)

(C++, High Performance Computing, Bioinformatics)

Improved the performance of one of the genome assembling stages,
Sealer, with the use of OpenMP and MPI.

Ostrava, Czech Republic

Summer 2018

Open Source

Contributor, Meteorflux Project (meteorflux.org)

(Python, Flask, Bootstrap, jQuery, AWS, Leadership)

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.

Autumn 2017 - Summer 2018

Startup

Co-founder, *Medici Project*

(Finance, Android, OpenCV, Machine Learning, Python, Django)

Attempted and failed a startup. The idea was to create a personalized assistant for every day financial tasks. Failed due to team's diverging future plans.

Belgrade, Serbia
Autumn 2017 - Spring 2018

Petnica Summer Institute Machine Learning 2017 (psiml.petnica.rs)

Participant, *All Sky Cloudiness Estimator Project* (github.com/...)

(Python, Tensorflow, OpenCV)

A 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 IEEEESTEC - 10th International Students Projects Conference.

Petnica, Serbia
Autumn 2017 - Spring 2018

OTHER ACTIVITIES

Personal Project

Arch Setup (github.com/...)

(Linux, Bash)

A set of Bash scripts that automate the setup of various Arch Linux components to make it functional and user friendly.

Spring 2017 – present

Personal Project

Meteor Observation Notebook (play.google.com/...)

(Android, Java)

An Android application that aids visual meteor observations. Adjusted not to distract at night time and to help later data analysis.

Autumn 2017 – present

UBC Orbit (ubcorbit.com)

Aspectu Project

(C++, STM32, FreeRTOS)

Member of the UBC Orbit student club whose mission is to build and launch a cubesat capable of capturing images of Earth.

Vancouver, Canada
Winter 2018 - Autumn 2019

International Meteor Conference 2017 (imo.net/...)

Member of the local organizing committee

(Organization)

Helped organize the conference, introduce attendees, and provide technical support.

Petnica, Serbia
Autumn 2017

University of Belgrade, School of Electrical Engineering (etf.bg.ac.rs)

Student Demonstrator

Overseeing laboratory practices and grading students' assignments.

Belgrade, Serbia
Autumn 2014 - Autumn 2017

University of Belgrade, School of Electrical Engineering (etf.bg.ac.rs)

Student Mentor

(Soft Skills)

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

Belgrade, Serbia
Autumn 2015 - Autumn 2016

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INTERESTS & HOBBIES

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