

## VLADIMIR NIKOLIĆ

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

## SKILLS

## BIOINFORMATICS

Genome Assembly★  
Variant Calling  
Illumina, Linked Reads

## SYSTEMS &amp; 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 &amp; 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**

University of British Columbia ([ubc.ca](http://ubc.ca))

Grade Avg: 88.3%, Thesis:

"Scalable methods for improving genome assemblies"

NSERC-CREATE scholarship awardee

Vancouver, Canada

Winter 2018 – Spring 2021

**B.Sc. in Software Engineering**

University of Belgrade ([etf.bg.ac.rs](http://etf.bg.ac.rs))

CGPA: 9.54/10.00, Thesis:

"Cloudiness Estimation using Convolutional Neural Networks"

Belgrade, Serbia

Autumn 2013 – Spring 2018

## WORK &amp; RESEARCH EXPERIENCE

**Research Programmer**

Canada's Michael Smith Genome Sciences Centre ([bcgsc.ca](http://bcgsc.ca))

Designing and implementing scalable Bioinformatics software, primarily  
for genome assembly applications.

Vancouver, Canada

Spring 2021 – present

**Intern**

Institute of Physics Belgrade Innovation Centre ([ic.ipb.ac.rs](http://ic.ipb.ac.rs))

Devised and implemented a custom visual pattern comparison algorithm  
for the Teslagram project.

Belgrade, Serbia

Spring 2018, Autumn 2018

**Co-founder**

Startup, Medici Project

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.

Belgrade, Serbia

Autumn 2017 – Spring 2018

## PUBLICATIONS &amp; CONFERENCE PROCEEDINGS

**ntJoin: Fast and lightweight assembly-guided scaffolding using minimizer  
graphs**

Bioinformatics ([academic.oup.com/...](http://academic.oup.com/...))

Coombe L, Nikolić V, Chu J, Birol I, Warren R

Spring 2020

**Automation of a meteor video network**

International Meteor Conference 2018 Proceedings ([imo.net/...](http://imo.net/...))

Nikolić V, Golubović S

Pezinok-Modra, Slovakia

Summer 2018

**Cloudiness estimation for video meteor observations**

International Meteor Conference 2017 Proceedings ([imo.net/...](http://imo.net/...))

Nikolić V, Schröder L, Tešić A

Petnica, Serbia

Autumn 2017

## OTHER ACTIVITIES

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### Developer

Spring 2017 – present

*Personal Project, Arch Setup* ([github.com/...](https://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/...](https://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](https://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](https://summerofhpc.prace-ri.eu))

Summer 2018

Improved the performance of one of the genome assembling stages of the ABySS assembler ([github.com/...](https://github.com/...)) with the use of OpenMP and MPI.

### Contributor

Autumn 2017 – Summer 2018

*Open Source, Meteorflux* ([meteorflux.org](https://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](https://psiml.petnica.rs))

Autumn 2017 – Spring 2018

Made All Sky Cloudiness Estimator Project ([github.com/...](https://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 IEEEESTEC - 10th International Students Projects Conference.

### Member of the local organizing committee

Petnica, Serbia

*International Meteor Conference 2017* ([imo.net/...](https://imo.net/...))

Autumn 2017

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

### Student Demonstrator

Belgrade, Serbia

*University of Belgrade* ([etf.bg.ac.rs](https://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](https://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

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