# **VLADIMIR NIKOLIĆ**

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#### SKILLS

BIOINFORMATICS	SYSTEMS & LOW LEVEL	DATA SCIENCE
Genome Assembly Variant Calling Illumina, Linked Reads	Linux, Bash C, C++, Rust, x86, ARM Arduino, Raspberry Pi, STM32 Computer Architecture Basic Electronics	Deep Learning, Tensorflow Computer Vision, OpenCV Python SQL, PostgreSQL
COLLABORATION	WEB & MOBILE	LANGUAGES
UML	Python, Django, Flask	Serbian (Native speaker)
Git	Bootstrap, jQuery	English (Fluent, IELTS 8 / CEFR C1
LaTeX	HTML, CSS, Javascript	German (Basic)
	Java, Android	
	EDUCATION	

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

MSc in Bioinformatics

Vancouver, Canada Winter 2018 – present

 $\textbf{University of Belgrade, School of Electrical Engineering} \ (\underline{\textbf{etf.bg.ac.rs}}) \\$ 

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 and administrated the local Paradox supercomputer.

Belgrade, Serbia Spring 2018, Autumn 2018

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

Internship, 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 Autumn 2017 - Summer 2018

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.

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)

 $Participant, All~Sky~Cloudiness~Estimator~Project~({\tt github.com/...})$ 

(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 IEEESTEC - 10th International Students

Projects Conference.

Petnica, Serbia Autumn 2017 - Spring 2018

## OTHER ACTIVITIES

UBC Orbit (ubcorbit.com)

Vancouver, Canada Winter 2018 - present

Petnica, Serbia

Autumn 2017

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.

Personal Project Autumn 2017

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.

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

Member of the local organizing committee

(Organization)

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

Personal Project Spring 2017

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.

 $\textbf{University of Belgrade, School of Electrical Engineering} \ (\underline{etf.bg.ac.rs})$ 

Student Mentor

(Soft Skills)

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

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

Student Demonstrator

Overseeing laboratory practices and grading students' assignments.

Belgrade, Serbia Autumn 2015 - Autumn 2016

Belgrade, Serbia Autumn 2014 - Autumn 2017

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#### **INTERESTS & HOBBIES**

Nature and Urban Exploring • Freeclimbing • Parkour • Snowboarding • Soft Martial Arts • Meteor Observation