VLADIMIR NIKOLIĆ

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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
SQL, PostgreSQL

HIGH PERFORMANCE

C, C++, Rust
SLURM
Big Data

WEB & MOBILE

Python, Django, Flask
Bootstrap, jQuery
HTML, CSS, Javascript
Java, Android

LANGUAGES

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

EDUCATION

University of British Columbia, Faculty of Science (ubc.ca)   Vancouver, Canada
MSc in Bioinformatics   Winter 2018 – present
    Expected graduation: Winter 2020

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

PUBLICATIONS & CONFERENCE PROCEEDINGS

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

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

WORK & RESEARCH EXPERIENCE

Institute of Physics Belgrade Innovation Centre (ic.ipb.ac.rs)   Belgrade, Serbia
Internship, *Teslagram Project*   Spring 2018, Autumn 2018
(Computer Vision, OpenCV, C++, High Performance Computing)
    Devised and implemented a custom visual pattern comparison
    algorithm.

PRACE Summer of HPC (summerofhpc.prace-ri.eu)   Ostrava, Czech Republic
Internship, *ABySS Assembler* (github.com/...)   Summer 2018
(C++, High Performance Computing, Bioinformatics)
    Improved the performance of one of the genome assembling stages,
    Sealer, with the use of OpenMP and MPI.

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   Belgrade, Serbia
Co-founder, Medici Project   Autumn 2017 - Spring 2018
(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.

Petnica Summer Institute Machine Learning 2017 (psiml.petnica.rs)   Petnica, Serbia
Participant, All Sky Cloudiness Estimator Project (github.com/...)   Autumn 2017 - Spring 2018
(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.

OTHER ACTIVITIES

Personal Project   Spring 2017 – present
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.

Personal Project   Autumn 2017 – present
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.

UBC Orbit (ubcorbit.com)   Vancouver, Canada
Aspectu Project   Winter 2018 - Autumn 2019
(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.

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

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

University of Belgrade, School of Electrical Engineering (etf.bg.ac.rs)   Belgrade, Serbia
Student Mentor   Autumn 2015 - Autumn 2016
(Soft Skills)
> 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