

CURRICULUM VITAE

PERSONAL INFORMATION

Karlo Mrakovčić

Ivana Gorana Kovačića 57, 51521 Punat, Croatia

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Date of birth: 28.10.1992.

EDUCATION

High school education: Gimnazija Andrije Mohorovičića Rijeka

2017. - 2019. Undergraduate Study of Physics, Faculty of Physics, University of Rijeka

2019. Bachelor of Physics, univ. bacc. Phys.

2019. - 2021. Graduate Study of Astrophysics and Physics of Elementary Particles, Faculty of Physics, University of Rijeka

2021. Master of Physics (mag. phys.)

GPA: 3.04 (at 4.00 scale)

WORK EXPERIENCE

2016. - 2020. Student job, operator and instructor at water-skiing cable, Cable Krk, Punat

2019. - 2021. Student job instructor of physics and math, Instruction school Lumen, Rijeka

2021. Student traineeship, Cherenkov Telescope Array, member of collaboration, data processing

2021. - 2022. Associate at Department of Digitalization, Expert for Artificial Intelligence, Valamar Riviera d.d., Poreč

1.2.2022. - 30.04.2022. guest scientist at University of Washington, work on the classification of the cosmic particles for the Vera Rubin Observatory using machine learning

2022. - Assistant, University of Rijeka, Faculty of Physics

UNDERGRADUATE AND GRADUATE THESIS

Undergraduate thesis: Neural Networks in Astrophysics, mentor: prof. dr. sc. Dijana Dominis Prester

Graduate thesis: Automated Classification of LSST Images Using Convolutional Neural Networks, mentors: prof. dr. sc. Dijana Dominis Prester, prof. dr. sc. Željko Ivezić

PRIZES AND AWARDS

2020. Award for the Best Undergraduate Thesis of Undergraduate Study Programme in Physics, University of Rijeka

VOLUNTEERING

2019. Help with organizing LST (Large Size Telescope) General Meeting in Rijeka

CONFERENCES

2019. LST (Large Size Telescope) General Meeting in Rijeka

2021. LST (Large Size Telescope) General Meeting

LANGUAGES

Croatian language: mother tongue

English language: C1 level

Italian language: learned for 4 years, capable of basic communication

German language: capable of basic communication

MEMBERSHIPS IN SCIENTIFIC ORGANIZATIONS AND BODIES

Society of Mathematicians and Physicists, Croatia (DMF)

CTA Consortium (Cherenkov Telescope Array)

LST (Large Size Telescope) collaboration within the CTA consortium

Collaboration with LSST and the University of Washington in Seattle

TALKS

26. Nov. 2021. Croatian Astronomical Society, HAD Scientific meeting: Automated Classification of LSST Images Using Convolutional Neural Networks

COURSES

Deep Learning specialization - Coursera and Deeplearning.ai online course - artificial intelligence course

TECHNICAL SKILLS AND COMPETENCES

- Control of Cherenkov telescopes CTA
- CTA data processing
- Extensive experience and programming skills in different programming languages: Python, LUA, Fortran
- Extensive experience in machine learning and artificial intelligence
- Experience working at HPC Bura
- The experience of teaching physics at an instruction school
- Good organization and structure in work, experience of working in a larger and smaller teams
- Attended international conferences and developed skills for communication and collaboration at distance
- Communicative, reliable and responsible person with a strong desire to learn and progress
- Driving license B category