Vanja Mišković

Research

My principal research interest is the implementation of Artificial intelligence (AI) in medic
doing my research as a post-doc at Department of electronics, computer science and bioeng
at Politecnico di Milano and professional collaborator at Fondazione IRCCS Istituto Nazional di
Milano. The main focus of my research is the use of explainable machine and deep learning for the treatment prediction in oncology. I am working in close collaboration with medical doctors, towards finding a way to a real-world clinical implementation of those predictive models. I am passionate about multidisciplinary research that can help people.

Experiences

May 2022 **Post-doctoral researcher at Department of electronics, computer science and bioengineering, Politecnico di Milano, Milan**
Fellowship: EDUCATION FOR WOMEN'S EMPOWERMENT Big data and Artificial intelligence for health

Mar 2023 **Professional collaborator at Fondazione IRCCS Istituto Nazionale dei Tumori di Milano**
My work focuses on:

- I3LUNG project - solving the puzzle of Lung Cancer Complexity with Artificial Intelligence | i3lun.eu
- Apollo 11 - Consortium in Advanced Lung Cancer Patients Treated with Innovative Therapies: Integration of Real World Data and Translational Research | apollo11.network

Feb 2023 **Occasional collaborator at Fondazione IRCCS Istituto Nazionale dei Tumori di Milano**

Sep 2022 **Researcher at Microgravity Research Center, ULB, Brussels**

Apr 2022 Principal researcher on iWound project
Researcher on WHISKIES (Wound Healing and Monitoring in Space) project

Oct 2021 **PhD student at Microgravity Research Center, ULB, Brussels**

Sept 2021 Thesis title: Wound monitoring towards an intelligent platform

Sept 2016

Education

2016-2021 **Doctor of Philosophy, PhD in engineering and technology**, École polytechnique de Bruxelles, ULB
2014-2016 **M.Sc in Materials Engineering**, University of Novi Sad, Novi Sad, Serbia
2010-2016 **B.Sc in Materials Engineering**, University of Novi Sad, Novi Sad, Serbia

Technical skills

Language Experienced in Python; including data analysis and visualisation, Machine Learning, Explainale Artificial Intelligence, Survival analysis, Deep Learning image segmentation, convolutional neural networks; Libraries: Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, Scikit-survival, Keras, TensorFlow, and PyTorch

Laboratory Strong laboratory skills, including materials synthesis and characterisation; Experienced in using FTIR, Spectrophotometer, tensile machine, InkJet printer, 3D printer, 3D bio-printer, spin coater

Software Solid knowledge in LaTeX, Sigmaplot; Intermediate knowledge in ImageJ and Corel-DRAW; Proficient in Solidwork

Interpersonal and organisational skills

General Fast learner; good at resolving conflicts and building trustworthy relationship with colleagues, supervisors and collaborators

Communication Experienced in presenting complex subjects to larger international audience and communication of the scientific research to the media

Organisational Solid coordination, planing and organisation skills gain through:

- Co-coordinating AIONLab, joint platform between Politecnico di Milano and Istituto Tumori MIlano
- Organisation of ESA Parabolic flight experiment *Testing the tensile stress and absorption on biomimetic materials in microgravity conditions for wound healing monitoring* in Novespace, Bordeaux, France;
- Organisation of ESA workshop *Challenges and Solutions in Support of Human Space Exploration*, as part of Graphene week, Helsinki, Finland;
- Organisation of ESA Topical Team meeting, *Tissue Healing in Space*, Noordwijk, Netherlands;
- Organisation of ESA workshop *Graphene for Human Space Exploration* as part of Graphene week, San Sebastian, Spain;
- In charge of Materials laboratory at Microgravity research center

Teaching Co-supervision 3 PhD thesis, Supervised four master thesis and two internships at Politecnico di Milano; Teaching assistant at master course Machine Learning for Genomics; Teaching PhD course XAI in Oncology at Politecnico di Milano

Certificates and awards

- Best poster award: 2024 AI in Oncology;
- Best poster award: 2023 Summer School in Translational Cancer Research
- DeepLearning.AI: AI for Medical Prognosis Coursera see credential
- DeepLearning.AI: AI for Medical Diagnosis Coursera see credential
- Biomedical Research - Basic/Refresher Course - Human Subjects Research, CITI Program, see credential
- IBM: Data Visualization with Python Coursera see credential
- IBM: Data Analysis with Python Coursera see credential
- IBM: Python for Data Science and AI Coursera see credential
- Grant David and Alice Van Buuren for the end of the study

Languages

Serbain Native speaker
English Full professional proficiency
Italian Limited working proficiency

Relevant Conferences

Oct 2024	**Oral presentation**, How generative AI can support researchers today, AIOM giovani, Bologna
May 2024	**Oral presentation** I3LUNG: A machine learning framework to improve treatment selection in Lung Cancer, FSTMO, Sibiu, Romania
May 2024	**Oral presentation**, ExplainableAI for RWD and gaps in images, AI in Oncology, Milano
Apr 2024	**Oral presentation**, Lung pathology: The EU-funded I3LUNG project, ESPID workshop
Jan 2024	**Oral presentation**, Multiomics and AI for individualized lung cancer treatment, XI Liquid Biopsy Symposium, Santago de Compostela
Apr 2023	**Oral presentation**, eXplainable Artificial Intelligence (XAI) in Oncology, Neuroethics Workshop, Milano
Oct 2021	**Oral presentation invited speaker**, Thermal imaging in wounds, how far can we go?, Technology in Wound Care, Brussels
Sep 2019	**Panel speaker**, Women in Graphene, Helsinki

- Autorizzo al trattamento dati ai sensi del GDPR 2016/679 del 27 aprile 2016 (Regolamento Europeo relativo alla protezione delle persone fisiche per quanto riguarda il trattamento dei dati personali).
- Autorizzo la pubblicazione del Curriculum Vitae sul sito istituzionale del Politecnico di Milano (sez. Amministrazione Trasparente) in ottemperanza al D. Lgs n. 33 del 14 marzo 2013 (e s.m.i.).