Vanja Mišković

My LinkedIn Profile
Nearlab | Department of electronics, information and bioengineering
Politecnico di Milano | Via Ponzio 34/5, 20133 Milano
Fondazione IRCCS Istituto Nazionale dei Tumori di Milano
vanja.miskovic@polimi.it | vanja.miskovic@istitutotumori.mi.it

Research

My principal research interest is the implementation of Artificial intelligence (AI) in medicine. I am currently doing my research as a post-doc at Department of electronics, computer science and bioengineering, NearLab, at Politecnico di Milano and professional collaborator at Fondazione IRCCS Istituto Nazionale dei Tumori 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 and make world a better place.

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
  WP7 - Explainable AI
  WP6 - Learning and reasoning
- Apollo 11 - Consortium in Advanced Lung Cancer Patients Treated with Innovative Therapies: Integration of Real World Data and Translational Research | apollo11.network
  Data curation
  Model development

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

Oct 2021 Researcher on WHISKIES (Wound Healing and Monitoring in Space) project

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

Sept 2016 Thesis title: Wound monitoring towards an intelligent platform
The work done includes:

- **Creator and principal investigator on iWound study** - collaboration with Queen Astrid Military Hospital - 2021 - 2022
- **Researcher on European Space Agency (ESA) supported Microgravity Application Programme Wound Healing and Monitoring in Space (WHISKIES)** - 2019 - 2020
- **Researcher on NATO Science for Peace and Security project - Rapid Skin Wound Healing by Integrated Tissue Engineering and Sensing (RAWINTS)** - 2016-2018

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 CorelDRAW; 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: • 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	Supervised four master thesis and two internships; Teaching assistent at master course Machine Learning for Genomics

Certificates and awards

- 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
French	Limited working proficiency
Italian	Limited working proficiency

Conferences

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
Sep 2019	**Oral presentation**, Graphene-based hydrogel composites for a wound dressing application in Space conditions, Graphene Week: ESA workshop, Helsinki
Sep 2019	**Oral presentation**, Flexible Liquid Crystal Temperature Monitoring System for monitoring the Wound Healing Process, EOS OμS'19, Anacapri
Sep 2018	**Oral presentation**, Graphene-alginate composites for application in biosensors: wettability and mechanical properties, Graphene Week: ESA workshop, San Sebastian
Jun 2017	**Oral presentation**, Photonic hydrogel sensors for monitoring wound healing process, 1st International Conference on Wound Healing and Monitoring, Pavia

- 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.).