

# Pavlo Radiuk

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LinkedIn account  
Github repository

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## Professional Summary

I am a **Junior Data Scientist, Ph.D.**, with strong math background using predictive modeling, data processing, and data mining algorithms to solve challenging business problems. Skilled in machine learning, applied statistics, problem-solving, and programming. Involved in the Python open-source community and passionate about deep learning and computer vision.

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## Skills & expertise

**Programming languages:** Python, MATLAB,  $\text{\LaTeX}$

**Data analysis:** Scikit-learn, NumPy, SciPy, Keras, TensorFlow, PyTorch, Tableau, MS Excel

**Environments:** Visual Studio, Jupyter Notebook, DataSpell, git,

**Databases:** SQL, MySQL

**Spoken languages:** Native Ukrainian, advanced in English (CEF B2)

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## Experience

- **Khmelnyskyi National University**

**Khmelnyskyi, Ukraine**

*Lecturer*

*09/2017 – present day*

- Developed training courses, constructed tests, prepared materials, graded assignments, taught class sessions. Evaluated students' projects, labs, tests, and misc.
- Coordinated and facilitated a few university courses: Systems of Artificial Intelligence, Machine Learning, System modeling, Project Management in IT.

- **4writers Research Group**

**Freelancer**

*Research Writer*

*08/2018 – 12/2020*

- Compiled and summarized researched information, data, and statistics in reports, documents and case studies in English.
- Drafted custom reports (PowerPoint presentations, white papers, infographics) from quantitative and qualitative data sources.

- **Non-governmental organization ASTAR**

**Khmelnyskyi, Ukraine**

*Data Analyst*

*03/2018 – 04/2019*

- Worked on analytical reports of various subjects: Overview of the Nails Market in Great Britain, the Czech Republic, Poland (2018); Market gardening: Vinnytsia, Khmelnyskyi and Chernivtsi oblast (2018); Potential markets for apparel producers in the Khmelnyskyi oblast (2019).
- Participated in negotiations with stakeholders; collected, defined and translated business objectives into the technical requirements; conducted an audit of a local business.
- Organized and administrated several educational events such as training sessions, meetups, workshops etc.

- **Khmelnyskyi National University**

**Khmelnyskyi, Ukraine**

*Senior Laboratory Assistant*

*12/2016 – 08/2017*

- Provided the maintenance of computer equipment, software, and a local computer lab network; carried out the administration of workplaces and users.
- Prepared the materials, control instruments, and multimedia, that are necessary for the implementation of the educational process.

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## Education

- **Khmelnyskyi National University**

**Khmelnyskyi, Ukraine**

*Computer Science, Ph.D.*

*09/2017 – 08/2021*

- Prototyped Python scripts to recognize images of diverse datasets using TensorFlow as a part of the doctoral thesis.

- Thesis: *Information technology for early diagnosis of pneumonia by the individual selection of parameters of the classification model by medical images of the lungs*

- **Khmelnytskyi National University**

**Khmelnytskyi, Ukraine**

*Mathematical and Computer Modeling, M.Sc*

09/2011 – 01/2017

- Obtained master's degree in the field of Mathematical and Computer Modeling and qualification of Mathematician - analyst, the teacher of a higher educational institution.
- Thesis: *Optimization of filter's size distribution in convolutional neural networks for classification problems*

## Trainings & workshops

- **Open Data Challenge**

**Kyiv, Ukraine**

*Two-day workshop of the competition of innovative IT-projects on the basis of open data*

05/12/2018 – 05/13/2018

- **The EBRD training**

**Kyiv, Ukraine**

*Analytical reviews - Data and methodological resources management to support SMBs*

08/28/2018 – 08/29/2018

- **The EBRD training**

**Kyiv, Ukraine**

*Business Needs Diagnostics for BiSC*

11/27/2018

- **PAIC Workshop Kyiv**

**Kyiv, Ukraine**

*Research in think tanks: development of own research and analysis of qualitative data*

03/12/2019 – 03/13/2019

## Prominent publications

1. **Radiuk P.M.** Impact of training set batch size on the performance of convolutional neural networks for diverse datasets. *Information Technology and Management Science*. 2017. Vol. 20, No 1. Pp. 20-24. DOI: <https://doi.org/10.1515/itms-2017-0003>
2. **Radiuk P.M.** Applying 3D U-Net architecture to the task of multi-organ segmentation in computed tomography. *Applied Computer Systems*. 2020. Vol. 25, No 1, Pp. 43-50. (WoS, Q4). DOI: <https://doi.org/10.2478/acss-2020-0005>
3. Krak Iu., Barmak O., **Radiuk P.** Information technology for early diagnosis of pneumonia on individual radiographs. 2020. *CEUR-WS*. ISSN 1613-0073. 2020. Vol. 2753. Pp. 11-21. (Scopus, Q4, WoS). URL: <http://ceur-ws.org/Vol-2753/paper3.pdf>
4. Barmak O., **Radiuk P.** Web-based information technology for classifying and interpreting early pneumonia based on fine-tuned convolutional neural network. *Computer systems and information technologies*. 2021. Vol. 3, No 1. Pp. 12-18. DOI: <https://doi.org/10.31891/CSIT-2021-3-2>
5. **Radiuk P.**, Barmak O., Krak Iu. An approach to early diagnosis of pneumonia on individual radiographs based on the CNN information technology. *The Open Bioinformatics Journal*. 2021. Vol. 14, No 1. Pp. 93-107. (Scopus, Q3). DOI: <https://doi.org/10.2174/1875036202114010093>