

# Mikhail Papkov

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- GENERAL INFORMATION**      **Citizenship :** Russian  
**Date of birth :** Oct 24, 1995  
**Languages :** Russian (native), English (C1), Estonian (B1), French, German (A1)
- TECHNICAL SKILLS**      **Programming languages :** Python, R, C/C++ (Qt), Bash, Matlab  
**Tools/Frameworks :** PyTorch, TensorFlow/Keras, NumPy, SciPy, Scikit-learn, OpenCV, Flask, Docker, Matplotlib, Seaborn, Bokeh, Shiny, Slurm, Git
- EDUCATION**      **University of Tartu**      **Sep 2017 - now**  
*PhD, enrolled in Sep 2019, Computer Science*  
*MSc, graduated cum laude in Jun 2019, Computer Science, GPA 4.86/5.00*  
Coursework: Algorithms, Machine Learning, Neural Networks, Image Processing, Natural Language Processing, Machine Translation, Bioinformatics, Data Mining, Neuroscience, DevOps
- Bioinformatics Institute, St. Petersburg**      **Sep 2016 - Jul 2017**  
Extracurricular program “Bioinformatics for Biologist”
- St. Petersburg State Polytechnic University**      **Sep 2013 - Jun 2017**  
*BSc, graduated with distinction, Medical Physics and Bioengineering, GPA 4.95/5.00*
- WORKING EXPERIENCE**      **Google Health : Research Intern**      **Aug 2022 - Nov 2022**  
Improved neural network models for organ contouring in 3D CT images for radiotherapy planning.
- University of Tartu : Junior Research Fellow**      **Oct 2017 - now**  
Working at the Biomedical Computer Vision Group on industrial collaboration projects in microscopy image analysis with deep learning (denoising, deconvolution, cell phenotyping, object detection, protein subcellular localization, etc.)
- MICARD-LANA JSC : C++ Developer**      **Sep 2014 - Aug 2017**  
Developed and put in production automated pediatric electrocardiogram interpretation algorithms for the Cardiometer-MT system.
- PUBLICATIONS**
- **Papkov, M.**, Roberts, K., Madisson, L.A., Bayraktar, O., Fishman, D., Palo, K. and Parts, L., 2021, October. Noise2Stack: Improving Image Restoration by Learning from Volumetric Data. In International Workshop on Machine Learning for Medical Image Reconstruction.
  - Ali, M. A. S., Misko, O., Salumaa, S.-O., **Papkov, M.**, Palo, K., Fishman, D., and Parts, L., 2021. Evaluating Very Deep Convolutional Neural Networks for Nucleus Segmentation from Brightfield Cell Microscopy Images. SLAS DISCOVERY.
  - Kaliuzhnyi D., Fishman D., **Papkov, M.**, 2023. Reducing the Effect of Incomplete Annotations in Object Detection for Histopathology. Accepted as a Tiny Paper at ICLR 2023.
  - Chizhov P., **Papkov, M.**, 2023. Self-Supervised Image Denoising with Swin Transformer. Accepted as a Tiny Paper at ICLR 2023.
  - Ariva J., **Papkov, M.**, 2023. Fast Fourier Convolutions in Self-Supervised Neural Networks for Image Denoising. Accepted as a Tiny Paper at ICLR 2023.
- COMPETITIONS**
- Kaggle 2019 Recursion Cellular Image Classification: 29/866 (top 4%, silver, solo)
  - Kaggle 2021 HuBMAP - Hacking the Kidney: 95/1200 (top 8%, bronze, in team)
  - Kaggle 2018 Data Science Bowl: 277/3634 (top 8%, bronze, in team)
- TEACHING**
- University of Tartu : Teaching assistant**      **Sep 2018 - Dec 2020**
- Special Course in Machine Learning *MTAT.03.317* — Spring 2019/20, Fall 2020/21
  - Machine Learning *MTAT.03.227* — Fall 2018/19, Fall 2019/20
- Cleveron Academy (EEK Mainor) : Lecturer**      **Mar 2021 - Dec 2021**
- Machine vision and signal processing *RT-034*
  - Machine Learning *RT-035*
  - Artificial Neural Networks *RT-033*

**GRANTS AND SCHOLARSHIPS**    **PerkinElmer Industrial PhD**    **Sep. 2019 - Aug. 2023**  
Project to create computational models improving the quality of microscopy images.

**Dora Plus grant**    **Sep. 2017 - Jun. 2019**  
One-year scholarship for international Masters students studying in Estonia (twice).

**Presidential Scholarship**    **Sep. 2014 - Feb. 2017**  
Scholarship for A-students on higher education programs.

**ADDITIONAL  
ACTIVITIES**

In my spare time I enjoy running (as well as other endurance sports) and travelling. I am also a competitive quizzer. At St. Petersburg State Polytechnic University, as the Head of the Intellectual Club I managed and hosted events for up to 300 people, coached university teams, and organized trips. At the University of Tartu, I have coached a team of students to become youth quiz champions of Estonia (in Russian language) in 2020, 2021, and 2022.