

## EXPERIENCE

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- **Pacific Northwest National Laboratory**  
*Research Intern*

  - ◇ Structural Validation of Synthetic Power Distribution Networks Using the Multiscale Flat Norm (ICCS, 2023)
  - ◇ Persistent Cycles in Directed Bipartite Graphs: An Application in Atmospheric Chemistry (in preparation)
  - ◇ Scikit-TDA tutorial (talk, IMSI 2022)

Richland, WA  
Jan-Dec 2022
- **Washington State University**  
*Teaching Assistant/Instructor/Grad student*

  - ◇ **Classes Taught:** Math 101, Calc I/II, Probability and Statistics, Statistical Methods
  - ◇ **Research & Talks:**
    - \* Efficient Network Flow Models for the Flat Norm (in preparation)
    - \* Bayesian Embedded Topic Model (in preparation)

Pullman, WA  
Aug. 2017 - May, 2024
- **Evolvice Team Gmbh**  
*Software Engineer*

  - ◇ **PDF Assets extraction engine:** Developed tools for extracting text and graphical assets from clients' marketing materials to prepare them for e-publishing within existing *Java/Spring/AWS* microservice architecture.

Kyiv, Ukraine  
Mar 2017 - Aug 2017
- **Lendico Global Services Gmbh**  
*Software Engineer*

  - ◇ **Payment Gateway:** Developed *Java/Spring* microservices for processing payments from EU and Swiss banks.

Kyiv, Ukraine  
Apr 2016 - Mar 2017
- **LevelUp Games**  
*Junior Software Engineer*

  - ◇ Was part of a team working on creating a Real Time Bidding infrastructure. Worked on documentation and implementation of REST *Java*-interfaces.

Kyiv, Ukraine  
Jan 2014 - Feb 2015
- **International Research and Training Center for Information Tech. & Syst.**  
*Research assistant*

  - ◇ **Ukrainian WordNet:** The goal of this project was to create a Ukrainian version of WordNet with students volunteered as translators and reviewers. I have developed and maintained a Java GUI client for accessing a remote Oracle database with UWN on it. Also, I supervised few groups of volunteered students.

Kyiv, Ukraine  
Oct 2012 - Mar 2015

## PROGRAMMING SKILLS

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**Languages:** Java, R, Python, SQL

**Technologies:** Pytorch, Spring, AWS, Git

## EDUCATION

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- Washington State University**  
**Department of Mathematics and Statistics**  
*Ph.D. in Applied Mathematics*

***Thesis:** Efficient Algorithms for Optimal Homology Problems and their Applications*

*Master's of Statistics*

***Topic:** Autoencoded Variational Bayesian Inference in Topic Models*

Pullman, WA  
Aug 2017 – May 2024  
Jan 2021 – May 2023
- Taras Shevchenko National University of Kyiv**  
**Department of Cybernetics**  
*Ph.D. in Computer Science (not completed)*  
*Specialist of Informatics*  
*Bachelor of Applied Mathematics*

Kyiv, Ukraine  
Oct 2009 – Oct 2012  
Sep 2008 – Jun 2009  
Sep 2004 – Jun 2008