Name	Lina Volobuieva
Position, Department/Faculty	Associate Professor of the Department of Software Engineering
Academic Degree, Academic Title	Candidate of Technical Sciences, Associate Professor
Email:	l.volobuieva@khai.edu
Scopus Author ID:	57203147598
Web of Science ResearcherID:	I-4266-2015
ORCID iD:	0000-0002-3466-5743
Google Scholar:	https://scholar.google.com/citations?user=MlOD7BUAAAAJ&hl=en
ResearchGate:	https://www.researchgate.net/profile/Lina-Volobuyeva?ev=hdr_xprf

EDUCATION:

Basic education (university, major, year of graduation):
Speciality: "Software of automated systems", National aerospace university "Kharkiv Aviation Institute", [1995-2001]

Postgraduate/Doctoral studies:
Candidate of Technical Sciences
National Aerospace University «Kharkiv Aviation Institute» [01/05/2001 – 01/04/2004]

Additional training, certification programs:

- Certificate of Completion of the "TEACHERS` SMARTUP" course by Sigma Software University. Partner of the course — IT Ukraine Association, 24.01.2022 - 28.01.2022, 30h. Certificate №10471
- Certificate of Completion of the series of events "About Artificial Intelligence in Simple Words", which took place from June 17, 2021 to July 20, 2021 as part of the social educational project "School of IT Professionals "ProfIT" on the basis of the M.E. Zhukovsky National Aerospace University "Kharkiv Aviation Institute", 1 ECTS credit, Issued Nov. 2021.
- Certificate of Completion of the University of Michigan Specialization "Applied Data Science with Python", 5 Courses: "Introduction to Data Science in Python", "Applied Plotting, Charting & Data Representation in Python", "Applied Machine Learning in Python", "Applied Text Mining in Python", "Applied Social Network Analysis in Python". Coursera, Issued May 2023.
- Certificate of Completion of the "Deep Learning" Specialization, 5 courses: "Neural Networks and Deep Learning", "Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization", "Structuring Machine Learning Projects", "Convolutional Neural Networks", "Sequence Models", Coursera, Issued Aug 2023.
- Certificate of Completion of the "Fundamentals of Reinforcement Learning" an online non-credit course authorized by University of Alberta, Alberta Machine Intelligence Institute and offered

through Coursera, Issued February 2024.

- Certificate for successful completion of the advanced training course "Algorithmization and Programming: Modern Methods of Training and Automated Verification", organized by the Public Organization "Kharkiv Information Technology Cluster" and the Youth Scientific Society Q-BIT within the framework of the IT Skills Standard initiative of the UCUP -2025 project, Kharkiv, 05/1/2025, 0.5 ECTS credits.

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

[07.2006] – [Current employment] Associate Professor at the Computer Systems Software Department, 3 12.2007 the name of the department was changed to «Software engineering», National aerospace university «KhAI»

[05.2004] – [06.2006] Assistant of the Computer Systems Software Department, National aerospace university «KhAI»

[05.2001] – [04.2004] Postgraduate Student, National aerospace university «KhAI»

Teaching Experience:

- Using of interactive teaching methods and digital educational tools
- Course syllabuses and courses development
- Conducting lectures and practical classes
- Mentoring student projects and team-based learning
- Knowledge assessment and providing constructive feedback

Experience in International or National Projects:

- "Experimental development of the on-board computer of a dual-purpose unmanned aerial vehicle", National Aerospace University "Kharkiv Aviation Institute", 01.08.2024 - 30.11.2025, national, implementor of the project, financial support from the National Research Foundation of Ukraine, project registration number №2023.04/0143.
- "Software development technologies for Internet of Things and cloud services ecosystem platforms", National Aerospace University named after M.E. Zhukovsky "Kharkiv Aviation Institute", State registration number: 0224U001872, 01.01.2021 – 31.12.2023, responsible executor.
- "Intellectualization of Internet of Things software", National Aerospace University named after M.E. Zhukovsky "Kharkiv Aviation Institute", State registration number: 0221U100711, 01.01.2018 -31.12.2020, responsible executor.

RESEARCH ACTIVITIES:

Main Research Areas:

Artificial Intelligence/Machine Learning; Software Engineering

Number of Publications (Scopus, WoS, others):

Over 50 scientific publications, including indexed articles in Scopus/WoS.

Monographs, Textbooks:

Co-author of 6 textbooks and collective monographs in the fields of software development

Participation in Scientific Conferences:

>30, including (Scopus):

- International Symposium on Electric Aviation and Autonomous Systems (ISEAS), September

2025, Lviv, Ukraine.
- Integrated Computer Technologies in Mechanical Engineering" – Synergetic Engineering – 2024 (ICTM 2024), December 2024, Kharkiv, Ukraine.
- The 13th IEEE International Conference on Dependable Systems, Services and Technologies, DESSERT'2023, October 2023, Athens, Greece.

TEACHING ACTIVITIES:

Courses Taught:
- Lecturer of the undergraduate course: "Software Design".
- Lecturer of the undergraduate course: "Artificial Intelligence Systems".
- Lecturer of the undergraduate course: "Artificial intelligence in game applications".

Author Courses, Academic Programs:
- Software Design;
- Artificial Intelligence Systems;
- Artificial intelligence in game applications;
- Number Theory Algorithms;
- Dynamic programming.

Methodological Materials, Textbooks:
Author and co-author of textbooks in the Software Engineering
Developer electronic resources and video materials for hybrid and online teaching (LMS: Moodle).

GRANTS AND PROJECTS:

Participation in International and National Projects:
Project "Experimental development of the on-board computer of a dual-purpose unmanned aerial vehicle", National Aerospace University "Kharkiv Aviation Institute", [01/08/2024 – 30/11/2025], national, (project participant), financial support from the National Research Foundation of Ukraine; project registration number №2023.04/0143; https://se.khai.edu/grant-nfdu/

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Honorary Titles:
2nd place in the competition of professional skills "Icarus Khai" in the nomination "Young Scientific Worker" [2009].

Membership in Professional Associations:
Member of Ukrainian Scientific IT Society

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):
- Liubimov O, Turkin I, Pavlikov V, Volobuyeva L. Agile Software Development Lifecycle and

Containerization Technology for CubeSat Command and Data Handling Module Implementation. Computation. 2023; 1 1(9): 182. https://doi.org/10.3390/computation11090182, Q2
- Turkin I, Leznovskyi V, Zelenkov A, Nabizade A, Volobuieva L, Turkina V. The Use of IoT for Determination of Time and Frequency Vibration Characteristics of Industrial Equipment for Condition-Based Maintenance. Computation. 2023; 11(9):177. https://doi.org/10.3390/computation11090177, Q2
- Liubimov, O.; Turkin, I.; Cheranovskiy, V.; Volobuieva, L. UAV Mission Computer Operation Mode Optimization Focusing on Computational Energy Efficiency and System Responsiveness. Computation 2024, 12, 235. https://doi.org/10.3390/computation12120235, Q2

Books, Chapters in Collective Monographs:
- Liubimov, O., Turkin, I., Volobuieva, L., Iovenko, I., Liubimov, M. (2025). Developing Hardware and Software for UAV Onboard Computers: A Combined Approach with SWOT Analysis. In: Lytvynov, O., Pavlikov, V., Krytskyi, D. (eds) Integrated Computer Technologies in Mechanical Engineering - 2024. ICTM 2024. Lecture Notes in Networks and Systems, vol 1473. Springer, Cham. https://doi.org/10.1007/978-3-031-94845-9_18
- Turkin, I., Liubimov, O., Volobuieva, L., Valkovyi, V. (2025). Expert Evaluation of Serial Interfaces Effectiveness for Unmanned Aerial Vehicles Onboard Networks. In: Lytvynov, O., Pavlikov, V., Krytskyi, D. (eds) Integrated Computer Technologies in Mechanical Engineering - 2024. ICTM 2024. Lecture Notes in Networks and Systems, vol 1473. Springer, Cham. https://doi.org/10.1007/978-3-031-94845-9_22

ADDITIONAL INFORMATION:

Language Proficiency:
Ukrainian, English

IT Skills:
- Productivity Tools: Microsoft Office (Word, Excel, Access, PowerPoint), Google Drive
- Development Tools: VS Code, Microsoft Visual Studio
- Programming Languages: Python, C++, C#, Pascal
- DBMS: MySQL.
- Educational Platforms: Moodle
- Communication & Collaboration: Zoom, Google Meet, Social Media
- AI/ML: Python (NumPy, Pandas, Scikit-learn, TensorFlow, Keras, PyTorch), C++, MATLAB, Scilab. Data Science & Analytics: data preprocessing, feature engineering, statistical modeling, predictive analytics, visualization (Matplotlib, Seaborn). Tools & Frameworks: Jupyter.

Social and Community Activities:
Vice-Head of Department of Software Engineering (Research) (5+ years)
Vice Dean (Research), Faculty of Software Engineering and Business, National Aerospace University "Kharkiv Aviation Institute" (10+ years)