Mykola Morozov, Senior Software Engineer

Munich, Bavaria, DE | @TUM | @Group107 | @GitHub | @LinkedIn | @Telegram | @Google Scholar | @ResearchGate | @Orcid | @Mastodon | @Facebook | @Instagram | @X

PROFESSIONAL SUMMARY

Hi, my name's Mykola and I'm a TUM PhD and an ex senior software engineer at IsraelIT. As well as enterprise systems I also have experience making software and cross-platform apps. Detail-oriented, responsible and committed developer, with a get-it-done, on-time and high-quality product spirit. I quickly learn new skills and programming languages. I educate, refine and drive myself to be a better person.

EXPERIENCE

Scientific Assistant | *Technical University of Munich, Munich, Germany* 2023-10 – Present
- Database engine modules, gpu-cpu parallel execution, distributed computing orchestration
- Creation and Optimization of Highest-Performance Database Backends.
- C++, Database Development, WebAssembly, Cloud Computing, Data Visualization

Senior Software Engineer | *IsraelIT/Group107, Munich, Germany* 2022-06 – 2023-09
- Banking backends, microfrontends, e-commerce solutions, CRM platforms
- Architecture and Development of Enterprise-Level Software Systems.
- Software Development, Machine Learning, Microservices, Kubernetes, Amazon Web Services (AWS), Microsoft Azure

Intern Research Assistant | *National Institute of Informatics, Tokyo, Japan* 2022-10 – 2023-03
- System architecture design, cloud computing, large-scale 3D visualization, machine learning
- Digital Humanities research, including cultural heritage Big Data 3D visualization, processing, and restoration.
- System Architecture, Machine Learning, Microservices, Kubernetes, Google Cloud Platform, Unity 3D

Flutter Developer | *IsraelIT/Group107, Lviv, Ukraine* 2021-02 – 2022-06
- Zero-code website and app development, deep customization, social integration
- Development of Cross-Platform Dynamic Server-UI Applications.
- Flutter, Swift (Programming Language), Kotlin, JavaScript, User Interface Design

Lead Unity 3D Developer | *IsraelIT/Group107, Tel Aviv District, Israel* 2019-08 – 2022-03
- Short-term competitions with real-world prizes in a recognizable form
- Development of Cross-Platform Skill-Based Asynchronous Multiplayer Games.
- Project Management, Multiplayer, Web3, CSharp, .NET, Unity 3D

Mobile Application Developer | *FreeTbl, Lviv, Ukraine* 2018-11 – 2019-03
- Online platform for restaurant booking with crowd density and table availability tracking
- Creation of interactive mobile applications using Xamarin; UI/UX design; backend development.
- User Interface Design, Android, Xamarin, ASP.NET, Kotlin

Unity 3D Developer | *Freelance, Lviv, Ukraine* 2017-08 – 2018-11
- Casual and hypercasual mobile games, desktop simulators and social platforms
- Development of Desktop and Mobile Demo and Vertical Slice Projects.
- Git, CSharp, .NET Framework, Unity 3D

EDUCATION

PhD Informatics in Data Science and Engineering GPA : TBA
Technical University of Munich | Munich, Germany 2021-10-09 – Present

Master's Thesis in Digital Humanities GPA : A, 1.0/1.0
National Institute of Informatics | Tokyo, Japan 2022-10-17 – 2023-03-17

The thesis was written on the topic "An Extensible System for Large Scale Cultural Heritage Data Visualization". It focuses on providing a flexible, extensible, versatile, and performant architecture for big data processing. The target application for the system is large-scale 3D landscape visualization in a before/after comparison app using interactive storytelling in educational and news coverage context for the destruction in Eastern Ukraine due to the ongoing war.

As part of the research, several scholarly publications were made and presentations at Google Japan, University of Tokyo, Yomiuri Shimbun and others were given.

MSc Informatics in Games Engineering GPA : 1.2/1.0
Technical University of Munich | Munich, Germany 2021-08-01 – 2023-09-31

During my time at TUM I focused on select areas of Machine Learning, 3D Geometry Processing, Visual Data Analytics, and Enterprise System Design.

In my free time I wrote scholarly papers together with students and professors from various universities on the topics of health tracking systems, procedural 3D content generation, and cloud systems.

BSc Computer Software Engineering in Embedded Systems
Lviv Polytechnic National University | Lviv, Ukraine

GPA : 98/100
2017-08-01 – 2021-07-31

At NULP I focused on Computer Graphics and Internet of Things domains, hosting game development workshops, representing Ukraine at international conferences, and taking part in international scientific competitions and olympiads.

In my free time I attended various seminars and webinars, doing interdisciplinary research with departments of Philosophy, Ukrainian Language as well as Political Science and International Relations.

Full Secondary Education in Mathematics
Lviv Physics and Mathematics Lyceum | Lviv, Ukraine

GPA : 11.4/12
2013-09-01 – 2017-07-31

At LPML I targeted my interest in Mathematics, Informatics, and Physics to improve my knowledge and attend state-level and international competitions, scoring highly in each.

In my free time I studied microcontrollers and other emerging IoT technologies, also doing some freelance work.

PUBLICATIONS

1. Y. Levus, P. Pustelnyk, R. Moravskyi and M. Morozov, "Cloud-Based Distributed Approach for Procedural Terrain Generation with Enhanced Performance," IEEE 18th International Conference on Computer Science and Information Technologies, Nov 2023, ISSN: 2766-3639
2. M. Morozov, A. Kitamoto, "Interactive Storytelling with 3D Visualization for Illuminating the Impact of War in Ukraine," Proceedings of the 12th Conference of the Japanese Association for Digital Humanities, Sep 2023, vol. 2023, ISSN: 2432-3187
3. Y. Levus, P. Pustelnyk, R. Moravskyi and M. Morozov, "Architecture of a Distributed Software System for Procedural Planetoid Terrain Generation," Ukrainian Journal of Information Technology, May 2023, vol. 5, no. 1, pp. 1-8, ISSN: 2707-1898
4. Y. Levus, R. Westermann, M. Morozov, R. Moravskyi and P. Pustelnyk, "Using Software Agents in a Distributed Computing System for Procedural Planetoid Terrain Generation," 2022 IEEE 17th International Conference on Computer Sciences and Information Technologies (CSIT), Jan 2023, pp. 446-449, ISSN: 2766-3655
5. M. Y. Morozov, R. O. Moravskyi, P. Y. Pustelnyk, and Y. V. Levus, "Algorithms and Architecture of the Software System of Automated Natural and Anthropogenic Landscape Generation," Radio Electronics, Computer Science, Control, Jul 2022, vol. 61, no. 2, pp. 154–164, ISSN: 1607-3274
6. S. Kundys, B. Havano, M. Morozov, "Software System for Monitoring the Situation in the Settlement," Advances in Cyber-Physical Systems, Jun 2022, vol. 7, no. 1, pp. 38–45, ISSN: 2524-0382
7. B. Havano, M.Y. Morozov, "Assessing the Human Condition in Medical Cyber-Physical System Based on Microservices Architecture," Advances in Cyber-Physical Systems, Dec 2021, vol. 6, no. 2, pp. 112–120, ISSN: 2524-0382
8. V. Bielik, Y.V. Morozov, M.Y. Morozov, "Sensors in Cyber-Physical Systems Based on Android Operating System," Advances in Cyber-Physical Systems, Dec 2021, vol. 6, no. 2, pp. 83–89, ISSN: 2524-0382
9. M. Y. Morozov, R. O. Moravskyi, P. Y. Pustelnyk, and Y. V. Levus, "Containerization method for visualization of natural and anthropogenic landscapes," Scientific Bulletin of UNFU, Nov 2021, vol. 31, no. 5, pp. 90–95, ISSN: 1994-7836
10. M. Y. Morozov, R. O. Moravskyi, P. Y. Pustelnyk, and Y. V. Levus, "Landscape Generation for Spherical Surfaces: Problem Analysis and Solution," Scientific Bulletin of UNFU, Feb 2020, vol. 30, no. 1, pp. 136–141, ISSN: 1994-7836
11. M. Y. Morozov, "Чужомовні слова в українській комп'ютерній термінології: проблема походження" [Foreign words in Ukrainian computer terminology: the problem of origin], Proceedings of the All-Ukrainian student scientific-practical conference "Українська мова в просторі й часі" [Ukrainian language in space and time], Apr 2019, pp. 118–121, ISBN: 978-966-941-324-6
12. M. Y. Morozov, "Можливі сценарії розвитку співпраці між групою 5+1 та Іраном в контексті виходу США з ядерної угоди" [Possible scenarios for the development of cooperation between the 5+1 Group and Iran in the context of the US withdrawal from the nuclear agreement], roceedings of the international scientific-practical conference "Суспільні науки: проблеми та досягнення сучасних наукових досліджень" [Social sciences: problems and achievements of modern scientific research], Dec 2018, pp. 102–106, UDC 30:001.8(063)
13. M. Y. Morozov, "Неотрайбалізм в епоху глобалізації" [Neo-tribalism in the era of globalization] 76th Student Scientific and Technical Conference: a collection of abstracts, Nov 2018, pp. 418–420

AWARDS AND CERTIFICATIONS

DevOps Crash Course certificate , *SoftServe | Academy*, May 2024
Onboarding Program (OPB2403) Elective Module: Designing and Grading Exams certificate , *ProLehre | Media and Didactics*, Apr 2024
Learning for Tomorrow – EMEA Initiative 2022 workshop certificate , *INCAS Training und Projekte GmbH and Co. KG*, Oct 2022
Bescheinigung über Kursteilnahme im 'Online-Deutschkurs kompakt' , *Carl Duisberg Centren*, Oct 2021
C/C++ BaseCamp certificate , *Global Logic Education*, May 2021
TOEFL iBT C1+ Test Taker Score Report , *ETS*, Nov 2020
Standardkurs B2.2 Zertifikat , *Sprachlernzentrum Lwiw*, Jul 2020
Agile practice certificate , *Sigma Software University*, Feb 2020
Standardkurs B2.1 Zertifikat , *Sprachlernzentrum Lwiw*, Jan 2020
Standardkurs A2 Zertifikat , *Sprachlernzentrum Lwiw*, Jun 2019
Standardkurs A1 Zertifikat , *Sprachlernzentrum Lwiw*, Jan 2019
Cambridge English: First Level 2 Certificate in ESOL International (First) , *UK Office of Qualifications and Examinations Regulation*, May 2017

DAAD scholar "Master Studies for All Academic Disciplines, 2021/22" , *Deutscher Akademischer Austauschdienst*, Kyiv, Ukraine, May 2021

Certificate of Participation in Global Game Jam 2021 Ukraine , *Global Game Jam Ukraine*, Kirovohrad, Ukraine, Jan 2021

Member of Ternopil GameDev Community , *undefined*, Ternopil, Ukraine, Apr 2019

2nd degree diploma in 2nd stage of the all-Ukrainian student olympiad in the discipline "Team Algorithmic Programming" , *Lviv Polytechnic National University*, Lviv, Ukraine, Apr 2019

Representative of Ukrainian Game Development Community , *White Nights Conference*, Berlin, Germany, Feb 2019

1st place award in Global Game Jam 2019 Ukraine , *Global Game Jam Ukraine*, Lviv, Ukraine, Jan 2019

2nd degree diploma in 2nd stage of the all-Ukrainian student olympiad in the discipline "English Language" , *Lviv Polytechnic National University*, Lviv, Ukraine, Apr 2018

3rd place certificate in BEST::HACKathon 2017 , *BEST Lviv*, Lviv, Ukraine, Oct 2017

State scholarship award for students with exceptional academic achievements , *Ministry of Education and Science of Ukraine*, Lviv, Ukraine, Sep 2017

Award for high achievements in education, significant achievements during the EIT , *Lviv Regional State Administration of the Lviv Regional Council*, Lviv, Ukraine, Jul 2017