

pavel larionov

innovation & technical director

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Analytical and visionary innovation and technology leader with a Master of Science degree in biomedical engineering and extensive experience in digital technology, IT project leadership, and digital transformation. Over a decade of experience bridging the gap between technology, product development and business strategy. Demonstrated success in pioneering projects and leveraging AI to drive growth and enrich the customer experience. Skilled at catalyzing collaboration across diverse teams and departments to synchronize technology efforts with business goals.

Notable projects include leading the development of the award-winning [Dot Go](#) iOS app for the visually impaired, [The Truth Wins](#) campaign to bypass censorship, and catalyzing AI initiatives within the company, manifested in the most recent project - [AI Eric](#), a relationship coach.

Previously worked in biomedical engineering, contributing to neuroscience research by developing a [spike sorting algorithm](#) and leading a development unit in a [project to improve palliative care](#) through technology-enabled solutions.

Areas of Expertise

- Strategic IT and Product Vision
- AI Integration and Leadership
- Innovation & Digital Transformation
- Leading & Execution Research & Development
- International Business & Relations
- Data-Driven Decision Making
- Idea-to-launch Product Development
- Client Engagement and Relationship Management
- Technical and Scientific Writing
- Public Speaking and Workshop Facilitation

Languages

- English: Fluent
- German: Fluent
- Russian: Native

Interests & Hobbies

- Personal/Professional Automation
- Technical Microblogging (X)
- Video Games (competitive & soulslike)
- Martial Arts (Aikido, Kendo, Iaido, MMA)

Professional Experience

Hyperinteractive Innovation Studio | Hamburg, Germany (remote)

Hyperinteractive Innovation Studio is a forward-thinking digital innovation firm specializing in leveraging cutting-edge technologies to solve complex challenges. With a focus on AI, digital product development, and creative technological solutions, Hyperinteractive serves a global clientele, driving innovation across various industries.

Creative Technologist | Oct 2021 - Feb 2024 (2 yrs 5 mos)

Reporting to the CEO, responsible for leading the Research & Development, focusing on digital innovation, AI integration, and technology strategy. Overseeing multidisciplinary professionals, the role demands pioneering new technologies and methodologies to enhance client projects and internal capabilities.

- Prepared comprehensive research documentation, ideation sessions, architecture design, technical evaluation, project timelines, and cost estimations, and presented those findings as pitches to clients for over 30 projects. About 50% of those projects were successfully executed, ensuring steady income for the company.
- Launched more than 15 projects as creative technologist and technical director for cross-functional teams, ensuring transparent client communication, timely delivery, and high-quality control.
- Projects with my direct participation as leader of multidisciplinary development units received over 50 international industry awards within 2 years of assignment, including iF Design Awards, Cannes Lions, Eurobest, New York Festival, Art Directors Club, etc., boosting the company's market visibility. See full list of awards 1ar.io/awards.
- Integrated AI into 8 projects and pioneered the implementation of generative GPT-powered solutions, reaching user satisfaction of over 80%.
- Initiated and nurtured a knowledge exchange program within the company, facilitated over 100 internal sessions, wrote 3 articles about cutting edge technologies for the company's blog, and led 3 external workshops with up to 100+ participants, leading to new business opportunities.

University of Applied Sciences Mittelhessen | Giessen, Germany (hybrid)

THM is recognized for its applied sciences approach in engineering, IT, and life sciences. Located in Hesse, Germany, with campuses in Giessen, Friedberg, and Wetzlar, it provides a dynamic educational environment supported by a significant annual budget and a dedicated faculty team to over 15,000 students, underscoring its commitment to innovation and excellence in higher education.

Two promotions within 4.5 years of assignment

Information Technology Project Lead | Sep 2019 - May 2021 (1 yr 9 mos)

Reporting to the project's consortium leadership, responsible for overseeing the development and implementation of information technology solutions aimed at improving palliative care through the Avenue-Pal project. This role involved multidisciplinary collaboration, strategic planning, budgeting & supply management, and direct leadership of a team dedicated to creating digital health applications and platforms.

- Led a Research & Development Unit of 18 team members in an Avenue-Pal consortium project, which was funded with €2 million, aimed at improving palliative care nationwide through tech-enabled solutions: Caregiver App and HelpDesk.

- Led the development of the Caregiver App, a mobile application for iOS and Android, which significantly simplified patient information capture in a compatible data exchange format and provided granular educational support for caregivers at various stages of palliative care by providing over 60 curated articles. The app was tested by over 10 individuals and evaluated by independent healthcare professionals as highly beneficial.
- Led the development of the HelpDesk, a web-based assistance platform for caring homes and hospitals, converting text-based guidelines into an actionable and dynamic system with over 857 items, which was evaluated as highly helpful by participating healthcare institutions.
- Engaged in project management and achieved the possibility to gradually grow the project team from 5 to 18 members without increasing the budget, ensuring timely delivery and high-quality control.
- Organized the final symposium and delivered one of the keynotes about the project for 100+ participants, gathering high-profile governmental and scientific stakeholders from all parts of Germany.
- Contributed to more than 3 publications, capturing the outcomes of the Avenue-Pal project from technical, organizational, and sociological perspectives, ensuring the project's visibility and potential for further funding.

Project Engineer | Dec 2018 - Aug 2019 (9 mos)

Reporting to the IT project leadership, responsible for research and prototyping, creating the proof of concept, user research and management of supplies.

- Concept design and prototyping of the Caregiver App and HelpDesk for the Avenue-Pal consortium project, aiming to enhance the quality of life of patients nationwide in their last life phase by improving the information flow between doctors and palliative experts and reducing the non-indicated patient transfers from 20% to 5%, which affects 150,000 individuals annually.
- Conducted user research and a 7+ expert review of the high-fidelity prototype for the solutions developed in the project, leading to 2 major iterations of reconceptualization for the initial idea, which helped significantly optimize the cost by ensuring the correct direction of development.
- Managed the procurement of 20+ pieces of equipment and 3 different software tools, ensuring a uniform development environment.

Research Associate and Tutor | Dec 2016 - Nov 2018 (2 yrs)

Reporting to the scientific group's leader Prof. Dr. Thomas Schanze, contributing to research in neuroscience and biological signal processing, responsible for laboratory experiments and tutoring.

- Tutored 50+ students across 2 modules ("Digital Systems", "Theory of Systems and Control Technology"), resulting in an 85%+ pass rate in practical examinations and marked improvements in students' practical application skills.
- Author and co-author of 5 peer-reviewed scientific papers (read 642 times and cited 6 times) on spike sorting of neurological signals, published in national journals and presented at scientific conferences, ensuring an increase in the university's scientific score and recognizability.

- Supervised 3 bachelor students in their thesis writing phase, organized practical experiments for 20+ master students, which promoted scientific activity and publication writing among young researchers.
- Assisted in the organization of two international scientific conferences, "Bioniq", which were held at the university in Germany and in Cyprus, attracting over 150 attendees in total, ensuring the university's visibility and potential for international cooperation between German and Iraqi students.

Additional Experience

- **Managing Director** | Jun 2014 - May 2019 (5 yrs)
Veronica Medical Equipment Ltd. | Frankfurt am Main, Germany
- **International Communicator & Sales Manager** | Jan 2013 - Jun 2014 (1 yr 6 mos)
West-Trading (medical equipment, wholesale and technical support) | Öskemen, Kazakhstan
- **Sales Manager** | Jan 2012 - Jun 2013 (1 yr 6 mos)
Tropicana Touristic Agency | Öskemen, Kazakhstan
- **Assistant Martial Arts Coach** | 2011 (1 yr)
Öskemen Aikido, Kendo & Iaido Martial Arts Dojo | Öskemen, Kazakhstan

Education

M.Sc. Biomedical Engineering

University of Applied Sciences Mittelhessen | [thm.de](https://www.thm.de) | 2017 - 2019

Grade: 1.4 (ECTS grading scale)

- Master's thesis: *"Spike Sorting of Multivariate Signals"*, Grade: A, (1.1, 94%).
Developed an improved method of spike sorting for multichannel electrode arrays (also applicable for non-medical fields), which was published in a peer-reviewed journal and presented at a scientific conference.
- Honors & Awards: Awarded the DAAD scholarship for selected international Master students, showing notable academic achievements and potential.
- Activities: Member of the Institute of Biomedical Technology (IBMT). Participated in the Bioniq International Biomedical Summer School in Cyprus.
- Focus areas: biosignals, neuroscience, algorithms, biocybernetics, and prosthetics, aligning with current industry innovations in medical technology.

B.Sc. Biomedical Engineering

University of Applied Sciences Mittelhessen | [thm.de](https://www.thm.de) | 2013 - 2017

Grade: 2.6 (ECTS grading scale)

- Bachelor's Thesis: *"Correlation Based Spike Sorting"*, Grade: A (1.1, 94%)
Developed a lightweight, easy-to-use, and fast spike sorting algorithm based on the calculation of correlations of spikes' waveforms, which was published in a peer-reviewed journal and presented at a scientific conference.

- Honors & Awards: Awarded the DAAD scholarship for selected international Bachelor students, showing notable academic achievements and potential.
- Activities: Contributed to the organization and success of the international “Bioniq” scientific conference. Took part and held a presentation “Current Frontiers in Nuclear Reactors” at the scientific conference for students “Physics in the Healthcare”.
- Focus areas: microbiology, material science, programming

B.A. International Relations

Sarsen Amanzholov East-Kazakhstan State University | vku.kz | 2007 - 2012

Grade: B+, 3.56, 89% (USA grading scale)

- Bachelor's Thesis: *“International Partnership between Germany and Kazakhstan”*, Grade: A, (4.00, 98%)
- Activities: engaged in the debate club and organized student events, developing strong communication, negotiation, and leadership skills.
- Focus areas: history, politics, regional management, diplomacy (conflict solving, ethics and protocols, international negotiations), foreign languages (English and German, Chinese)

Awards

2023

#1 Technical Director

- **Creativepool:** [Ranked #1](#) in the Global Top 25 Technical Directors in the Annual 2023 rankings, based on the number of awards won and the quality of the projects.

Dot Go App

- **iF Design Award:** Design Award (Communication/Apps/Software), Design Award (User Interface/Digital Media Interfaces)
- **Clio Awards:** 2 Silver (Digital/Mobile & Social Media Craft, Innovation), 2 Bronze (Creative Use of Data, Digital/Mobile)
- **D&AD:** 2 Graphite (Experiential/Use of MR, Direct/Innovation), Silver (Digital/Health & Wellbeing)
- **Webby:** Best Practices, People's Voice Award (Apps, dApps and Software/Experimental & Innovation)
- **ADC:** Merit (Design for Good/Interactive)
- **One Club:** Gold (Innovation & Transformation, Online & Mobile), Silver (Augmented, Virtual & Mixed Reality), Bronze (Use of Technology), Merit (Digital Design)
- **The Andy's:** 2 Gold (Reset, Idea)

The Truth Wins

- **One Club:** Silver (Social Post/Single Platform Series), 4 Merit (Various Categories)
- **ADC:** Bronze (Design for Good/Advertising - Single), 3 Merit (Various Categories)
- **Clio Awards:** 3 Silver (PR/Cause Related, Public Affairs, Social Media/Single Platform), Bronze (Digital/Mobile/Other)

2022

Dot Go App

- **Cannes Lions:** Silver (Brand Experience & Activation)
- **New York Festivals:** Gold (Innovation: Technology), 3 Silver (Best Innovation, Product Innovation, Apps)
- **Epica Awards:** Gold (Apps & Games), Silver (Creative Use of AI)

The Truth Wins

- **Cannes Lions:** Silver (PR Lions), Bronze (Sustainable Development Goals Lions)
- **Eurobest:** Gold (Media), 3 Bronze (Culture & Context, Social Engagement & Influencer Marketing, Social Insights & Engagement)
- **Gerety Awards:** Gold (Media Cut/Mobile), Silver (Work for Good Cut/Mobile), Bronze (Communication Cut/Mobile)

2021

Dot Go App

- **Eurobest:** Grand Prix (Innovation), Silver (Digital Craft)

Publications

1. Series of articles for Hyperinteractive Innovation Studio's blog, 2024.

- [Composite AI](#): the Art of AI Collaboration
- Beyond Centralized Social Media: How [Open Protocols](#) are Reshaping Internet
- Reimagining Offline Experiences with [Spatial Computing](#)
- Navigating the Future: Top [5 Tech Trends for 2024](#)

2. How Will We Die in the Future?

- Description: Exploration of the impacts of digitalization on individual, social, and institutional approaches to dying, death, and mourning by 2045. Scenario development for future organization of these aspects, presenting desirable perspectives, and identifying actionable steps.
- Publisher: Psychosozial-Verlag, Date: Sep, 2023
- Larionov, P. (2023). "Wie werden wir in Zukunft sterben? Szenarien einer digitalisierten Gesellschaft," pp. 297-312. ISBN print: 978-3-8379-3232-4, ISBN online: 978-3-8379-6105-8. DOI: doi.org/10.30820/9783837961058-297

3. Correlation-based Spike Sorting of Multivariate Data

- Description: Introduced a novel method for automated classification of waveforms, particularly spikes recorded with multichannel electrode arrays, using principles of correlation and a Monte Carlo method for k-means clusters estimation.
- Publisher: De Gruyter, Date: Sep 18, 2019
- Larionov, P., Juergens, T. & Schanze, T. (2019). Current Directions in Biomedical Engineering, 5(1), pp. 113-116. DOI: 10.1515/cdbme-2019-0029

4. Does Healthcare Research in Germany Need a Register of Places of Death?

- Description: Discussion on the need for a centralized register or database to track places of death in Germany, analyzing the potential benefits for quality management, health system design, and other stakeholders.
- Publisher: Monitor Versorgungsforschung, Date: Jun 1, 2019
- George, W., Fritz, T., Papke, J., Weber, K., & Larionov, P. (2019). 12. 48-51. DOI: 10.24945/MVF.06.19.1866-0533.2191

5. Adaption of a Spike Sorting Algorithm to ECG Signals

- Description: Adaptation of a previously published spike sorting algorithm for analyzing ECG signals, demonstrating potential for sorting and differentiating normal and anomalous P-waves, QRS-complexes, and T-waves.
- Publisher: De Gruyter, Date: Sep 1, 2018
- Larionov, P., Janssen J.-D. and Schanze T. (2018). Biomedical Engineering / Biomedizinische Technik, Volume 63, Issue s1, Page 394. DOI: 10.1515/bmt-2018-6051

6. Correlation Based Spike Sorting

- Description: Development of a resource-saving, easy-to-use, and fast spike sorting algorithm based on the calculation of correlations of spikes' waveforms.
- Publisher: Pabst Science Publishers, Date: Mar 16, 2018
- Larionov, P. and Schanze T. (2018). Automed 2018 - Villingen-Schwenningen, March 15-16, Automed 2018 in Villingen-Schwenningen Tagungsband, pp. 71-73.