



Farruh Kushnazarov

Senior Solution Architect

- April 1986
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Online Platforms —

- Google Scholar
- ResearchGate
- LinkedIn
- Medium
- GitHub
- ORCID

About Me —

As a Research Scientist, I innovate in GenAI, collaborate globally, and advance VL and LLM. My work merges theory with practical applications, showcased at leading conferences.

Education

Study

- Ph.D. in Mathematical Modeling, Numerical Methods, and Computer Programs**
Research Field: *Develop data transmission methods for evaluating the real speed of data link layer protocols, which aimed at improving hardware and software components*
University: *Emperor Alexander I St.Petersburg State Transport University*
Year: *2012–2016*
Place: *St Petersburg, Russia*
- M.Sc. Information systems and technologies** 2008–2010
University: *Emperor Alexander I St.Petersburg State Transport University*
Place: *St Petersburg, Russia*
GPA: *4.67/5*
- B.Sc. Information systems and technologies** 2004–2008
University: *Emperor Alexander I St.Petersburg State Transport University*
Place: *St Petersburg, Russia*
GPA: *4.87/5*

Research Interest

- Product development
- Optimization
- Generative AI
- Deep learning
- Machine learning
- Computer network protocols
- Algorithm optimization
- Foundation models

Professional Experience

Academic Experience

- Lead Research Engineer, Midea HBT**
November 2020 – April 2022 *Foshan, China*
 - Languages — Tensorflow, Keras, Python, SPARQL, Cypher, RDF, Ontology.
 - Use data science methods to work with domain experts to develop and implement data-driven solutions.
 - The work mainly involves data-driven predictive control, predictive maintenance, fault diagnosis, behavior pattern analysis, etc.
 - Carry out including experimental design, data collection, data analysis, model building, model verification, model deployment, continuous iteration, and other aspects of work.
 - Complete the data modeling analysis report, and carry out technical precipitation.
 - Read relevant literature and keep up with the latest developments in data science and business.
 - Interview the potential candidates for the data scientist team.
- Research Engineer, Haima Automatic Investment Group Co. Ltd, R&D Center**
April 2016 – September 2016 *Shanghai, China*
 - Languages — C/C++, Python, and Bash.
 - Connected lidar and radar to decrease noises in raw data.
 - Designed a model car to check the capability of algorithms on ultrasonic sensors.
 - Optimized CANBus protocol to increase the efficiency of data transfer.
 - Optimized joint work and logic compatibility of equipments.
- Assistant of Professor, Tashkent State Transport University**
September 2010 – July 2012 *Tashkent, Uzbekistan*
 - To conduct laboratory and practical classes for below subjects:
 - Programming in C/C++ languages.
 - Network & communication systems on the railway.
 - Information systems on railway transport.
 - To assist the professor in research work, create application parts, and simulation parts of analytical models.

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Language Skills

English

- Fluent in speaking, reading, and writing (CEFR Level C1)

Chinese (Mandarin)

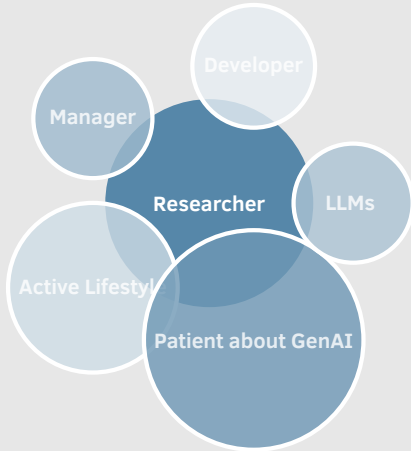
- Intermediate proficiency (HSK 4)

Russian

- Native proficiency

Uzbek

- Native proficiency



Hard Skills

Programming

- Python, R, SQL/NoSQL, Hive, Spark, C/C++, Matlab

Numerical Methods

- stochastic optimization and numerical solution of differential equation

Statistics

- Machine learning, data analysis, generalized linear regression, cluster analysis, factor analysis, principal components analysis (PCA), cross validation, generalized additive models, data analytics

Writing

- Written 50 articles via LaTeX, Markdown, HTML

Industry Experience

Senior Solutions Architect, Alibaba Cloud Global

April 2022 – Present Hangzhou, China

- Provide Generative AI solutions using foundation models (LLM, Stable Diffusion, etc.) for business use cases.
- Responsible for Generative AI solutions outside of China, such as Qwen series, Animate Anyone, and EMO.
- Working closely with R&D team for future direction and analyzing latest technologies/papers. Providing supervision and guidance to development teams.
- Continually researching the current and emerging technologies in LLM, foundation models, computer vision, NLP, etc., and proposing changes where needed.

Big Data & Data Scientist Manager, Ping An

September 2016 – November 2020 Shanghai, China

- Languages — Python, Tensorflow, Keras, R, RMarkdown, SQL, Spark, and Hive.
- NLP: have done projects like text classification, sentiment analysis, and text summarization.
- Implemented and retrained Mozilla DeepSpeech library for Automatic Speech Recognition.
- Created and tested the Speech Accent Classification System for native and non-native speakers, with a rate of 99% in metric recall.
- Conducted classification analyses of the customer life cycle stage to increase overall turnover.
- With algorithmic, optimized ongoing ML/DL models and checked the performance of implemented models.
- Established the Machine Learning model for refund customers and updated the refund model. Decreased the overall refund rate to 27%.

Senior Programmer, Data Analyst, Domus Sapiens

October 2012 – May 2015 St Petersburg, Russia

- Languages — C/C++, Assembler, and Bash.
- Lead and managed more than 20 projects on intelligent systems. Some of the most famous and complicated cases are the Moscow Smart Lighting Projects.
- Moscow Smart Lighting Projects were to do with five high buildings with various styles and functions, including office buildings and hotels. The requirements were not even similar from floor to floor, which made the whole projects equivalent to establishing a small smart city system. We successfully finished the projects and because of this, Domus Sapiens got several rewards.
- Implemented and applied the patent model to improve the quality of data transfer in wireless networks.

Software Engineer, ProDVD

October 2010 – March 2012 Tashkent, Uzbekistan

- Languages — C/C++.
- Developed the Card King for mobile phones, compatible for both Android and iOS systems, making it convenient for business people to organize and store business cards.
- Developed the audio encoding/decoding part for the Blu Ray player.
- Invented the word recognition software, both iOS and Android compatible.

Publications

Academic Publications

Link: [View All Scientific Papers](#)

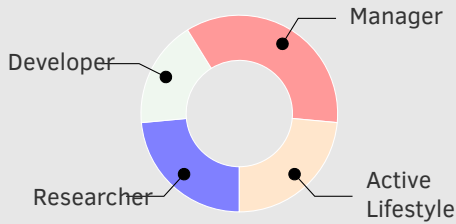
Others

Link: [View All Blog posts, Online tutorials, Hands-on guides, Technical articles](#)

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Wheel Chart



Barskills

Python



GenAI/LLM/Foundation Models



LaTeX/Markdown



References

[1] Prof. Dr. Yakovlev Valentin Vasilevich

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[2] Prof. Dr. KHOMONENKO ANATOLY DMITRIEVICH

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KHOMONENKO@pgupg.ru
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Projects

- 📅 **2020** *Everyone who speaks a language, speaks it with an accent*
Project Link: NLP - Speech Accent Detection
Results: Accuracy=0.90, Recall=0.91, Precision=0.93 Increased accuracy of ASR (Automatic Speech Recognition)
- 📅 **2019** *Classified to 10 different topics* Ping An Hao Xue 好学, under Ping An 平安 China Private
Results: 10 topics, Accuracy=0.87 with LDA
- 📅 **2015** *Moscow Smart Lighting Projects* Domus Sapiens
Project Link
- 📅 **2015** *Implemented at the company L-Cube LLC* L-Cube
Company WebPage
- 📅 **2016** *Certificates from EMC2 Data-Center* EMC-DELL
Implementation Certificate
- 📅 **2009** *Intelligent rail system transportation summit* IntellektTrans
Conference WebPage **Role:** Volunteer

Accomplishments

- 2021 *Accelerating End-to-End Data Science Workflows.* Link: Nvidia-Deep Learning Institute
- 2020 *IBM Data Science.* Link: IBM
- 2020 *Mathematics for Machine Learning: Multivariate Calculus.* Link: Imperial College London
- 2020 *Mathematics for Machine Learning: Linear Algebra.* Link: Imperial College London
- 2017 *Big Data 101.* Link: Big Data University
- 2016 *Data Mining.* Link: Intuit National Open University
- 2013 *Certificate of knowledge of technology AMX I - II level.* Link: Smart City and IoT
- 2013 *Certificate of knowledge of ABB technology I-III.* Link: Smart City and IoT
- 2013 *Certificate knowledge of technology Crestron I - II level.* Link: Smart City and IoT
- 2012 *Data Science - effective use of data.* DELL-EMC
- 2012 *ISM - administration of information and data storage.* DELL-EMC
- 2012 *The C Programming Language.* Link: Intuit National Open University
- 2007 *Fundamentals of IBM z Series.* Link: IBM

Dissemination, Interviews & Other Media Appearances

- [📺Link: Master Llama 3 LLM Deployment on Alibaba Cloud Intelligence](#)
- [📺Link: Easily Deploy Llama 3 LLM on Alibaba Cloud ECS with Ollama Runner & Open-WebUI!](#)
- [📺Link: Master the Creation of an AI-Powered RAG Service on Alibaba Cloud](#)
- [📺Link: Unlock the Power of Llama 3 LLM on Alibaba Cloud PAI-EAS](#)
- [📺Link: Mastering Generative AI: A Step-by-Step Course for LLama2 Models on Alibaba Cloud's PAI-EAS](#)