

KALRA Utkarsh

Data Scientist

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Research Gate: Kalra Utkarsh
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Seeking a dynamic role where my multifaceted experience in diverse sectors can be harnessed. I bring a unique blend of technical expertise and a track record of creative problem-solving in various domains. I believe that my commitment and passion for my work can bring value to the team significantly.

SKILLS

Tools and Languages	Python, C, C++, Pytorch, SQL, Linux, Bash/Shell, Tensorflow, AWS, Data Analysis, Financial Data Analysis, Git, Agile, Docker, Maven, Computer Vision, NLP, Jira, OpenAI, Langchain, LlamaIndex, RNN, KNN, Reinforcement Learning, Quality Assurance
Communication	English, Hindi, Russian (Intermediate), German(Basic).

TECHNICAL EXPERIENCE

Research Consultant <i>King Abdullah University of Science and Technology (KAUST)</i>	Dec 2023 — Present(In campus) <i>Thuwal, KSA</i>
<ul style="list-style-type: none">Conducted an extensive database analysis using Data mining techniques on 10000 files containing atomic and molecular information to derive an Atlas of modified RNA nucleotidesDeveloped a web application utilizing advanced machine learning for in-depth analysis of inter-molecular atomic interactions and predict molecular binding affinities and angles in bio-molecular structures. Utilised Python, C++ and JavaScript for the application software.Working on a project that uses machine learning models such as Light Gradient Boosting Regression to predict the stability of a proposed NanoBody-Antigen Structure.	
Data Scientist <i>Agents Inc.</i>	June 2021 — Aug 2023 <i>Berlin, Germany</i>
<ul style="list-style-type: none">Developed a specialized AI microservice utilizing data mining and deep learning to generate a comprehensive global news dashboard analyzing stakeholder impact based on user-defined keywords, currently being used by Multinational corporations including Petrobras and Thales.Headed the Development, maintenance, and customer communications of AI microservice agents that specialized in comprehensive summarization of Scientific articles present on a particular keyword in the present literature. Used RNN, KNN and Transformers ML techniques to build the model that will do classification of articles according to genres and used do similarity search.Made models for User Authentication Anomaly Detection for cybersecurity of our platform using LSTM and RNN. Made infrastructures for network monitoring including IPv4/IPv6 routing issues and throughput tests.Custom built a comprehensive Server monitoring software using Prometheus and Grafana, deployed and still being used for internal server monitoring.	
Course Curriculum Designer and Instructor <i>STEMskills Lab India</i>	Jan 2022 — Dec 2022 <i>Faridabad, India</i>
<ul style="list-style-type: none">Worked as visiting faculty. Crafted and instructed specialized online courses in Python for Bioinformatics and Machine Learning for Biology, Chemistry, and Forensic Science, while also conducting an intensive one-week workshop at Kasetsart University in Thailand, contributing significantly to global knowledge and expertise expansion.	
Research and Development Intern at NLP lab <i>Innopolis University</i>	May 2021 — Jun 2021 <i>Kazan, Tatarstan</i>
<ul style="list-style-type: none">Project regarding NLP for knowledge extraction from unstructured text using NLP methods and BERT.	
Research and Development Intern at Software Lab <i>Innopolis University</i>	May 2020 — Jun 2020 <i>Kazan, Tatarstan</i>
<ul style="list-style-type: none">Worked on creating an automated system that will produce a mind-map of all the preliminary information about a scientific article and will do the same for its references and references of the references up to a given level.	
Research and Development Intern at Robotics Lab <i>Innopolis University</i>	May 2019 — Jun 2019 <i>Kazan, Tatarstan</i>
<ul style="list-style-type: none">Created Virtual Reality project for controlling a robot arm using the controllers of the Samsung Odyssey Lens. Unity, Mixed Reality Toolkit, Holo lens toolkit, and Robotics Operating System, C and C++	

EDUCATION

Bachelor's of Science in Computer Science , <i>Innopolis University</i> <i>Academic Scholarship, Innopolis University</i>	Kazan - Russia Aug 2022 2018 — 2022
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PUBLICATIONS

Immunoinformatics Aided Design and In Vivo Validation of a Cross-Reactive Peptide Based Multi-Epitope Vaccine Targeting Multiple Serotypes of Dengue Virus , <i>Frontiers in Immunology</i>	2022
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NOTABLE PUROJECTS

TatSub,	2022
<ul style="list-style-type: none">• A web application that adds English and Russian subtitles on Tatar Videos. Made the model for Tatar Transcriptions using Transformers and Transfer Learning. Won the National TatarBu Hackathon with 2000 USD prize.	
Intelligent Image Caption Generator,	2021
<ul style="list-style-type: none">• Implementation of state-of-the-art Image captioning models with a modified pipeline structure. Which intern produced comparable results even on a smaller Training set.	
Real time eye blink detection,	2021
<ul style="list-style-type: none">• A program using python for real-time detection of eye-blink using Computer Vision techniques and Libraries.	
IU Mentor-ship Program,	2020-2021
<ul style="list-style-type: none">• Guided and supported five incoming students in academic and university life adjustments, fostering a smooth transition.	
RoboCup SSL 2020,	2019
<ul style="list-style-type: none">• In the University team for RoboCup. Worked on real-time path prediction. Including working on Robot Operating System to program Arduino and connections of different hardware	

ACHIEVEMENTS

National Tech Hackathon winner <i>Tatar.bu, Republic of Tatarstan</i>	2022 <i>Russia</i>
100 percent scholarship plus stipend <i>Bachelor's of Science in CS, Innopolis Univeristy</i>	2018-2022 <i>Russia</i>
IU diamond Award <i>Innopolis Univeristy</i>	2020,2021,2022 <i>Russia</i>