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Izat Shahsenov

Education:

- September 2008 – October 2011* **Baku State University**
Department of Physics
- September 2011 - June 2013* **Moscow Institute of Physics and Technology (MIPT)**
Department of General and Applied Physics
Bachelor of Science degree
- September 2011 - June 2013* **Lebedev Physical Institute, Russian Academy of Science (LPI RAS)**
Department of Theoretical Physics
Bachelor of Science degree
- September 2013 - June 2015* **Moscow Institute of Physics and Technology (MIPT)**
Department of Physical and Quantum Electronics
Master of Science degree
- September 2013 - June 2015* **Institute of Physics and Technology (IPT RAS)**
Department of Physical and Quantum Electronics
Master of Science degree

Work Experience

- September 2015 – September 2015* **Idrak Technology Transfer (LLC)**
Engineer
- *Mathematics*
 - *Deep Learning*
- September 2016 – Present* **Khazar University**
Teaching
- *Introduction to Petrophysics*
 - *Linear Algebra*
 - *Introduction to the Theory of Computation and Complexity*
 - *Introduction to the Python and Machine Learning / Deep Learning*

February 2016 – Present

*eiLink Research and Development Center
Senior Researcher*

- *Mathematical Modeling for Industrial Problems*
- *Machine Learning*
- *Deep Learning*
- *AI / Data Science*
- *Optimization Problems*

Projects:

- *Project Lead and Senior Researcher*
Theoretical and Experimental Investigation of Wettability Alteration and Its Impact on Hydrocarbon Recovery
- *Project Lead and Senior Researcher*
Modeling of the Cementation Factor and Hydraulic Permeability using Mercury Injection Capillary Pressure (MICP) Measurements
- *Project Lead and Senior Researcher*
Wax Precipitation Modeling Using Perturbed Chain Statistical Associating Fluid Theory (PC-SAFT)
- *Senior Researcher*
Modeling of Relative Permeability in Porous Media Using Computer Tomography (CT) Data Based on Lattice Boltzmann Model
- *Project Lead and Senior Researcher*
Prediction of the Real Time Distributed Temperature Sensing (DTS) Data From Production Data Using Deep Learning (Multi-Layer Perceptron) Approach
- *Project Lead and Senior Researcher*
Non-Linear Signal Processing of Distributed Acoustic Sensing (DAS) and Distributed Temperature Sensing (DTS) Systems Data
- *Project Lead and Senior Researcher*
Pre-Stack Seismic Inversion Based on Computer Vision (Convolutional Neural Network) and Continuous Wavelet Transform (CWT) Processing
- *Project Lead and Senior Researcher*
Seismic Image Enhancement Based on Non-Linear Signal Processing Techniques and Computer Vision (Generative Adversarial Network / Pix2Pix) Methods
- *Project Lead and Senior Researcher*
Development of the Smart Digital Purchasing System of Materials Using Rule Based Methods and Deep Learning Approaches (Natural Language Processing, Long Short-Term Memory Network)

Publications:

- *“Monte Carlo Simulation of Boron Doping Profile of Fin and Trench Structures by Plasma Immersion Ion Implantation”*, International Conference on Micro- and Nano-Electronics, 2014
- *“Modeling of the Cementation Factor and Hydraulic Permeability using Mercury Injection Capillary Pressure (MICP) Measurements”*, Journal of Petroleum Science and Engineering, Elsevier, 2018
- *“Wax Precipitation Modeling Using Perturbed Chain Statistical Associating Fluid Theory (PC-SAFT)”*, Fluid Phase Equilibria, Elsevier, 2020

Programming Languages:

C++, C, C#, Python, R, Matlab

Deep Learning / Computer Vision and ML Frameworks / APIs / Libs:

TensorFlow, Theano, PyTorch, NVIDIA Caffe, OpenCV, Keras, Scikit-learn

Languages

Azeri, Russian, English