Contact

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(LinkedIn)

Top Skills

Algorithms
C
Matlab

Languages

English (Professional Working)
Russian (Native or Bilingual)

Certifications

Probabilistic Graphical Models
Digital Signal Processing
Machine Learning

Publications

On Cardinality of Bigram Languages
(In Russian)
On cardinality of bigram languages
On bigram languages
On Bigram Languages (In Russian)

Patents

Motion Estimation for a Video
Transcoder
Soft attenuation of high-power
signals
Three-Dimensional Region of
Interest Tracking Based on Key
Frame Matching
Time-domain acoustic echo control
Incremental preamble detection

Alexander Petyushko

AI Expert at Huawei Technologies
Russian Federation

Summary

Mathematics, algorithms, programming, family ;)

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Experience

Huawei Technologies
AI Expert
April 2019 - Present
Moscow, Russian Federation

R&D project in Artificial Intelligence (AI).

Video Intelligence group.

Head of FaceID direction (Identification, Adversarial Attacks, Facial
Landmarks).

Statements of Works preparations for independent and collaboration projects
(including tasks for Fundamental Research in Neural Net domain).

Interviewing young talents.

Huawei Technologies
5 years 1 month

Principal Engineer
September 2017 - Present
Moscow, Russian Federation

R&D project in Artificial Intelligence (AI).

Video Intelligence group.

Head of Neural Net-based face recognition (identification / verification).

Multi-task end2end solutions (keypoints / detection / segmentation).

Awards:

2018 - Technology Innovation and Breakthrough Award

Scientific Consultant
September 2014 - September 2017 (3 years 1 month)
Moscow, Russian Federation

R&D project in new storage media.

Cold data storage systems.

Erasure coding techniques.

Object placement & scheduling algorithms.

File type recognition.

Neural Net compression.

Neural Net - based techniques for Image Super Resolution.

Neural Net - based techniques for Image DeBlur.

Awards:

2017 - Outstanding Contractor Award

LSI Corporation
Software Engineer
November 2008 - May 2014 (5 years 7 months)

Moscow, Russian Federation

Algorithms development and implementation in:

- H.264 Video Trans-Sizer (Regexps Perl coding),
- Media GateWay DSP Solutions (Voice Quality Enhancement modules: Echo Canceller, Automatic Level Control, High Level Compensation – C programming for DSP),
- BaseBand Project (WCDMA Layer 1 protocol implementation: PRACH preamble detection – C programming for vector processors),
- ReadChannel Project (Trapping Set analysis, Error Floor Estimation for LDPC codes - mainly MatLab+MEX programming),
- GR Project (hand/finger Gesture Recognition, Head Pose estimation using 3D cameras, 3D Face Recognition using low-resolution noisy 3D camera, Super Resolution of Depth images - MatLab/C/C++ programming);,
- FlashChannel Project (Flash Translation Layer, especially Wear Leveleler module - C++ programming);

A number of USA patents (some of them as a lead inventor) were filed.

RIRC of Bryansk region
Programmer
February 2007 - November 2008 (1 year 10 months)

Creating and supporting of a large DB (~1-10M records) on Oracle, implementing its functionality using PL/SQL; a number of client interfaces (Perl – CGI\Tk, AJAX (prototype, jQuery), Delphi) for interconnection with DB; Windows SVN server administration.

Computer Technologies

Programmer
September 2006 - April 2007 (8 months)
Bryansk Region, Russian Federation

Creating and supporting of bundled software to automate Internet provider tasks (accounting systems, billings, client and server-side for payment systems CyberPlat and OSMP using MySQL, PostgreSQL and Perl); implementing different web-interfaces and admin scripts (Perl, bash + sed, grep, awk) on demands for the administration department.

Auriga
Integration & testing department specialist
February 2006 - June 2006 (5 months)
Moscow, Russian Federation

RTOS lynxOS testing in different environments, different scripts for testing (Perl, bash + sed, grep, awk); participating in porting utilities, OS code bug fixing (C); using CVS, RCS.

Neurocom
Software Engineer
December 2003 - June 2006 (2 years 7 months)

Speech experiments, algorithms development (Matlab, C) and speech recognition in noisy conditions.

Optical and Electronic technologies
Software Engineer
July 2005 - April 2006 (10 months)
Moscow, Russian Federation

Statistical experiments, algorithms development using Matlab for observation and tracing problem (video data from infrared imager).

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Education

Lomonosov Moscow State University (MSU)
Doctor of Philosophy (Ph.D.), Mathematics, Mathematics · (2009 - 2012)

Lomonosov Moscow State University (MSU)
Master's Degree, Mathematics, Mathematics · (2000 - 2006)

Bryansk Pushkin's Lyceum 1
High School · (1997 - 2000)