# Aleksei Parfenov

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## **Summary of qualifications:**

- Over 10 years in software engineering
- System software development

- Computer languages: Java, C/C++, Python
- Languages: Russian, Fluent; English, IELTS 6

### **Employment History:**

#### **NIIIT-RK**

### C++/Python Software Engineer

Oct 2022 - Current

- ML experiments with time-series prediction models.
   Python/Qt app development.
- Python, C++, Qt, QML, Linux, Docker.

### Arlo / ITS Partner

www.arlo.com itspartner.net

### Computer Vision/Machine Learning Engineer

Dec 2018 - May 2022

- Developing, training, optimizing and evaluating machine learning models.
   Data preparation and annotation pipelines with CVAT, celery.
   Achieved 80% accuracy at raw color recognition task.
- Tools and frameworks: C++/Python. PyTorch, fast-reid, mmdetection. CVAT, AWS, EC2, Sagemaker. Linux, Docker, CI/CD.

### **ROCKET SOFTWARE**

rocketsoftware.com

Java Developer

Nov 2014 – Dec 2018

- Developed JDBC driver for Mainframe Database.
  - Used Java Core, Collections, ByteBuffers, Reflection, Networking, Custom protocol, Cryptography: AES, Kerberos, multithreading, regex, OOP, patterns, Unit Testing, Functional Testing, Knowledge Transfer/Reuse from ODBC team.
- Developed Eclipse database UI. Used Eclipse RCP, Legacy Code, Refactoring, Code reuse, SWT.
- Led a team of engineers to write a database web UI and entered it into Rocket Software's Boston hackathon. Used Spring Boot, Hibernate, DOJO.
- Work in an international team, weekly meetings, Git, Subversion, Test Driven Development, QA, build automation with Bamboo, task management with Jira.

RTS nports.ru

Software Engineer

March 2010 - Oct 2011

Designed and implemented UI on embedded system for complex embedded equipment.
 Used OOP, C++, patterns, Protobuf, Microchip Harmony, PIC32, Visual Studio, NIOS II, TI DSP, Custom networking, FPGA, Verilog.

- Developed version of the UI for Linux embedded platform. Used LFS, configured display driver, kernel, Device Tree Compiler.
- Developed instrumental and research software with C++, C#, Java for Windows and embedded systems. Applied hardware skills: wiring, soldering, testing, signal measurement with oscilloscope.

MIAC miac74.ru

Java Developer

Jul 2009 - Feb 2010

• Created and maintained online application for medical user' data collection over Internet using Adobe Flex framework. The application allowed collecting all required data from clients.

METRAN GROUP metran.ru

Software Engineer

Jan 2007 - Jul 2009

- Developed embedded software for pressure sensors using C\C++ with Object-Oriented approach. Took part in design of software architecture, worked in a team and did research of data processing algorithms.
- SCRUM, code review, version management, work in a team. ATMega, work with hardware, measurement and diagnostics.

### **Education:**

- 2003 2005 South Ural State University
  Theory and practice of English language, Diploma ΠΠ №761109
- 2001 2005 South Ural State University
   Design and development of electronic equipment, Diploma BCB 0728434

### **Professional Training:**

2019, Deep Learning Specialization, @Coursera

https://www.coursera.org/account/accomplishments/specialization/certificate/6WB33V3ULXKB

Apr 2018 - June 2018

# **Computer Vision School at 3DiVi**

- During the training developed basic hand and face detector for RGB-D image source and won 2nd place with it at local competition.
- Synthesis and augmentation of training data with 3D modelling software Blender. Training and validation of convolutional neural networks. Python: Keras, Tensorflow.
- Covered Topics: PCA, RANSAC, non-max supression, eigenvalues, rotation matrix, quaternions, LSQ, mean shift, ICP, SLIC, SVM, HOG, KNN, SIFT, matching, neural networks basics.

#### 2017, IELTS Certificate

obtained level 6