

# Oleksandr Sosnovshchenko

## Software Engineer

### Executive Summary

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Overall 5 years of experience in software development.  
Expertise in machine learning, Python, R, mobile development (iOS), natural language processing, deep learning, version management systems, unit tests and test automation, data visualization and analysis, Agile/Scrum.  
Fast learner, self-starter, adaptive, self-organized, open source contributor. I like to share knowledge.

### Technical Skills

Skill	Skill Sub Category
Machine Learning	Scikit-learn, Keras, Torch7, Caffe
Python	Python
Business Intelligence	R Programming
Image Processing	OpenCV
Cloud Systems	Apache Spark
Databases	MongoDB
SCM	SCM, Git
OS	MacOS X, Linux
QA Automation	Appium, BDD, JavaScript
Tools	PyCharm, XCode, Git, virtualenv
Mobile	iOS SDK, mobile security, Core Data, Swift, Objective-C
Others	Natural Language Processing, Predictive Analytics, Data Classification, Clustering, Data Mining, Time Series Analysis, Neural Networks, Visualization.

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### Foreign Language Skills

Language	Written	Spoken
English	Advanced	Advanced
Russian	Native	Native
Ukrainian	Native	Native

### Education

**Institution:** Ukraine, Dnipropetrovsk National University  
**Date(s) Attended:** August 2005 - June 2010  
**Qualification(s):** MS

**Major Subject(s):** Biology

## Professional Experience

**Company:** NDA  
**Duration:** Nov 2016 - Jul 2017 (7 months)  
**Role:** Author  
**Project Description:** I'm writing a book on machine learning for mobile devices for UK publishing house. It includes chapter on traditional machine learning as well as modern deep learning techniques for NLP, computer vision, time series analysis etc. Example applications include features like natural language understanding, face detection and emotion recognition, motion sensor data classification, spatial data analysis, rule mining, time series forecasting and others. Prototypes were written in Python, visualization was done using R and mobile applications implemented using Swift. The publication date is planned on autumn 2017.  
**Technologies:** Python, Scikit-learn, Keras, NLTK, Gensym, OpenCV, deep learning, convolutional neural networks, recurrent neural networks.

**Company:** GlobalLogic, Lviv, Ukraine  
**Duration:** Mar 2016 - Apr 2017 (about 1 year)  
**Role:** Software Engineer  
**Project Description:** Several applications in the domain of intelligent mobile threat detection and secure messaging and VoIP.  
**Responsibilities:** Research and implementation of POCs for network threat detectors.  
**Technologies:** Security, cryptography, Swift, MongoDB, iOS.

**Company:** sparse.tech, Poland  
**Duration:** Jan 2016 - Mar 2016 (2 months)  
**Role:** Machine Learning Consultant  
**Project Description:** Neural network-based grammar checker.  
**Responsibilities:** Deep neural language model for grammar checking designed with functional programming principles in mind.  
**Technologies:** Torch7, Deep learning, LSTM, convolutional neural networks, Lua, functional programming, machine learning.

**Company:** Gigaset Communication, Wroclaw, Poland  
**Duration:** Apr 2015 - Oct 2015 (6 months)  
**Role:** Software Developer  
**Project Description:** Home automation platform: Gigaset Elements and Gigaset MobileDock.  
**Responsibilities:** Developing mobile applications for Gigaset smart house platform. Integration with proprietary Bluetooth LE services and web-APIs.  
**Technologies:** Smart home, Objective-C, Python, Scrum, Agile, Kanban, TDD, Test automation, Bluetooth LE.

**Company:** Ciklum, Ukraine  
**Duration:** Feb 2014 - Apr 2015 (about 1 year)

**Role:** iOS Software Engineer

**Project Description:** Mobile health system.

“This is a virtual health service in your pocket. With an easy appointment and records system, leading clinicians and state of the art personal health monitoring capabilities, babylon is simply your own virtual health service in your pocket. It is the first organization of its kind to be registered with Care Quality Commission (CQC) and have designated body status from NHS England.”

**Responsibilities:** Research and development of custom motion activity recognition algorithms.  
Data collection, cleaning, and visualization.  
Core iOS application development.  
Technical documentation writing.

**Technologies:** iOS, machine learning, R, Python, inertial motion sensors, time series analysis.

**Company:** Yalantis, Ukraine

**Duration:** Jul 2012 - Feb 2014 (over 1 year)

**Role:** iOS Developer

**Responsibilities:** Mobile application development. I took part in development of 10 apps, 5 of them is for medical or biotech companies. Other includes mobile media platform, social media, games and productivity apps.

**Technologies:** Objective-C, OS X, Git, SVN, iOS SDK