# **Artem Kustikov**



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https://github.com/artiz

### Languages

- Russian (native)
- English (full professional)

## Skills

Carrier start - 2002

Performed 500+ technical interviews in JavaScript, .NET, and golang

JavaScript (Web, Full Stack): from 2002 and IE 5 till now

C++: from 2001 and Visual Studio 6/MFC till C++14

## Languages/Techologies

- JavaScript/TypeScript, ECMA-262/ES6/ES2015-20XX, AJAX, websockets, XML/XSLT, JSON/JSONP, Promise, co, jQuery, jQuery UI, Ext.js 4/5, Twitter Bootstrap 2/3, Backbone.js, Meteor.js, AngularJS, Angular, React/redux, knockoutjs, node.js, express, koa, passport, cluster, AFrame, grunt, THREE.js, gulp, bower, webpack, yarn, phantomjs, karma, lerna, jest, Cypress
- Go, GRPC, protobuf, excelize
- CSS 1/2/3, SASS, LESS, PostCSS
- C++/C++14/17 (Windows/Linux), MFC/COM/ATL, OpenGL, STL, sockets, boost, pthreads, MySQL C++ API, Internet Explorer extensions, ActiveMQ
- Medicine: ECG, DICOM, EDF, HL7, ISHNE
- ASP 3.0, VBScript, JScript, powershell scripting
- .NET, C# 1.0/7.0, Managed C++, ASP.NET Web Forms, ASP.NET MVC (1.0-5.0), MVC WebAPI,
  WCF/WCF.Extras, SignalR, OWIN, Nancy, WPF/WinForms, Unity, Entity Framework
- Sharepoint, MOSS/WSS, Aconex, Primavera, Documentum, EnterpriseVault, MS Exchange, Dropbox API, box,com API, ApparelMagic API, RLM API

- IIS5/8, Apache, nginx
- Java 1.3/SE 6, applets, servlets, Struts/FOP/JSTL/POI, JBoss, Tomcat
- Python, Django, Flask, SQLAlchemy, NumPy, nltk, scikit-learn, robot framework
- MS Access, MS SQL, MySQL, PostgreSQL, Oracle, MongoDB, Redis, DynamoDB, ElasticSearch
- PHP 3/5, OpenCommerce, Zend, Joomla
- Cordova, PhoneGap, Safari Extensions
- Docker, Helm, Kubernetes
- AWS: EC2, ElacticBeanstalk, RDS, Route 53, CloudFront, SQS
- Google Cloud: BigTable, PubSub, StackDriver

## Education

1997-2002

Belarusian National Technical University

Location: Minsk, Belarus

Degree: Computer Science, Robotics

Additional certificates: Several publications in student conference's materials describing robotics

simulation and off-line programming

## Experience

May 2018 - Present

#### **Intetics**

Outstaff Software Development Company

Position: System Architect/Senior FullStack Software Developer

Work on large b2b project in fashion industry evaluated as #1 on US Market. Participated in different integration tasks and custom ETL (extract, transform, load) engine development. Worked on migration of legacy frontend application from Ampersand. JS based framework to React JS.

Stack: Node.js (express, restify), ReactJS (TypeScript, redux, Ierna, grpc-web), Go lang (GRPC, protobuf), Threedium, Rust, Docker, Kubernetes, Google Cloud Platform, MongoDB, PostgreSQL, Bigtable

### Tasks:

- Performed nodejs microservices profiling and code refactoring/optimization. Got about 90% minimization of synchronous code execution in public REST API implementation methods.
- Developed rich interactive UI for ETL tool with [React Flow] (https://reactflow.dev/), [dagre] (https://www.findbestopensource.com/product/dagrejs-dagre) and GRPC
- Designed and implemented Box.com and Dropbox connectors for ETL engine (Go lang)
- Worked on excelize library integration into ETL engine XSL processor (Go lang), fixed several issues in library code: https://github.com/qax-os/excelize/pulls?

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• Worked on Threedium 3D models integration covering it with custom React component

Oct 2008 - May 2018

#### **EffectiveSoft**

Outsourcing Software Development Company

Position: System Architect/Senior Software Developer

Participated in 20+ projects including NLP and text mining tool Intellexer

## **Crowdfunding software**

b2b crowdfunding software to support local businesses with tight integration with Dwolla payments service

Stack: Node.js (express), React, AWS (EC2, ElacticBeanstalk, RDS, Route 53, CloudFront), webpack, jest, pdfkit, aws-sdk, AWS RDS (MySQL), Redis

### Tasks:

- Designed web client/admin app architecture
- Node.js background worker service to perform money transfers, apply interest charges and perform financial audit
- PDF notes generation with actual balance info
- Common UT system for client/server, CI setup (Bitbucket Pipelines)

### Online 360 deg video player/editor

Online video player/editor for interactive video presentations with 360deg/VR video support

Stack: Node.js (koa), Angular2, A-Frame, webpack, yarn, karma, Redis, MongoDB

## Tasks:

- Designed web/mobile app architecture
- Implemented custom video player Angular 2 component with 360deg/VR video support
- Designed Video streaming platform based on Amazon S3/CloudFront

Set of several e-mail archiving/processing software projects integrated with MS Exchange, MS Outlook, Veritas Enterprise Vault, and AWS

Stack: .NET (C#), ASP.NET MVC 5.0, Knockout.js, COM, MAPI, WinAPI

### Tasks:

- Profiled and optimized custom MicroSoft Compound File reader/writer based on MCDF (.NET)
- Designed and implemented rich UI features in admin web-project (ASP.NET MVC, knockout.js)

## **Symantec (Veritas) Enterprise Vault integration**

<sup>\*</sup>MicroSoft Exchange integration software

Implementation of custom messages filter for Symantec (Veritas) Enterprise Vault that is used to pull and transfer archived e-mail messages to ActiveMQ queue

Stack: C++14, COM, ActiveMQ

Tasks:

- Designed and implemented universal Enterprise Vault filter boilerplate in two versions:
  .NET(C#) and C++
- Implemented mail messages processing, important message properties extraction and transfering of parsed message data into ActiveMQ queue

### **Set of Cordova applications**

Development/optimization of several cross-platform mobile applications based on <a href="http://feedhenry.org/">http://feedhenry.org/</a> technologies

Stack: node.js, Express, Backbone.js, Angular.js, redis, MongoDB

Tasks:

- Designed and implemented Cordova application to work with large amounts of tabular data on client device (10-20 Mb of JSON). Designed custom async cache implementation that uses iOS file system using Cordova plugins
- Refactored mobile application architecture to use caching in localStorage/FileSystem and support application offline mode with automatic network connection check
- Refactored backend REST API to use modular structure instead of all-stuff-in-one-file architecture. Implemented REST API responses caching with Redis

Medicine: ECG files parsing and analysis

Stack: C#/Managed C++, Prism, Unity, WiX, SQLite

Tasks:

- Implemented new ECG formats files loading (Physionet, EFS, ISHNE, HL7)
- Refactored overall ECG files processing logic introducing universal data loader instead of set of duplicate implementations
- Designed/implemented local ECG recordings database using SQLite engine

## Online backup software

Development of several single-page applications to manage cloud online backup/big data storage. Applications based on Ext.js 4.0 (migrated to 5.0)

Stack: Ext.js 4.0/5.0, SASS, Python, Robot Framework

Tasks:

- Implemented branded UI based on online CSS file generation and loading into client application
- Applied responsive layout to complex Ext.js application
- Extended legacy Ext.js SVG charts to support custom controls/tips/animation

Worked on custom testing library for Robot Framework

Development of public API for EffectiveSoft semantic product Intellexer, extending/optimization of legacy modules

Stack: .NET Framework 4.5, C# 4.0, WCF, REST, Windows-services, WiX Installer, Rhino.Mocks, NUnit, NAnt, DocX, LINQ, Spring framework, JavaScript, backbone.js, jqGrid, qunit

Tasks:

 Designed and implemented full-stack client-server application with single page JavaScript client and REST API on server

Implemented set of WCF services to perform different semantic processing operations, API users/settings management

• Developed 20+ demo applications based on Twitter Bootsrap/backbone.js

Medicine: DICOM files parsing and view

Stack: C++/MFC, C# 4.0, ASP.NET MVC 4, SignalR, jQuery/canvas/Twitter Bootsrap, MS SQL Server/MS Access

Tasks:

Web-client to upload/view DICOM images converted to PNG on server-side (by C++ CGI).
 Web-client uses HTML canvas elements to display converted images and apply simple modifications to them: zoom, WL-transformation, interactive size measuring

• Optimize existing C++ CGI application to increase images generation performance and quality

 Developed multi-platform intranet clinic personal synchronization tool on ASP.NET MVC/SignalR

Implemented company site using Twitter Bootstrap, integrated online licensing tool

## **Investment orders management system**

Position: Senior Developer

Stack: C# 4.0, ASP.NET MVC 2, Entity Framework/Migrations, AutoMapper, jQuery/jQuery Ul/jQuery.jqGrid, PDFsharp-MigraDoc, LinqToCsv, DocumentFormat.OpenXml

Tasks:

Developed basic application architecture, DAL and UI

• Implemented PDF/XLS reports generation

• Integration with Microgen 5 Series system

## Insurance technologies software

Position: Senior Developer

Team Size: 10

Stack: C# 4.0, ASP.NET MVC 2, JavaScript, jQuery, LINQ (Objects, SQL), TFS, MS Unit Test, Spring framework.

#### Tasks:

- Participated in migration of complex insurance software to new application framework.
- Developed several rich-UI Javascript controls to use in application framework.
- Developed NAnt script as part of continuous build on TFS server
- Worked on implementation of several new insurance products within system.

## **Document management integration system**

Position: Senior Developer

Team Size: 4

Stack: C# 4.0, ASP.NET MVC 2, JavaScript, jQuery, LINQ (Objects, SQL) with DBLinq, NUnit, Rhino.Mocks, Unity framework, SQLite, MS SQL Server

### Tasks:

- Designed Web and Windows-service applications architecture.
- Developed MS SharePoint integration connector. Connector features: document libraries enumeration/deletion and creation; loading lists of folders/documents for each document library; documents download/upload and check-in/check-out; modification of document templates (add/remove/update fields).
- Developed SharePoint Web-Part to store custom document library settings.
- Developed base functionality of Web-application, UI features and DAL.
- Implemented Windows service to process synchronization tasks in background by user defined schedule using ThreadPool.

### Online book shop

Position: Senior Developer

Stack: PHP, Zend framework, Doctrine, jQuery, Python, sqlalchemy, subprocess, boto, PIL

### Tasks:

- Implemented set of books/ebooks information loading scripts implemented on Python. These scripts used to download products lists from books suppliers FTP servers in different formats, parse these files and insert/update products data in application database (MySQL).
- Refactored lots a legacy tools/modules to Zend MVC modules.
- Participated in performance optimization, implemented caching of business entities, optimized SQL queries

Oct 2006 - Oct 2008

InventionMachine - now IHS Markit

Innovation Software Development Company

Position: Software Developer

Technologies: .NET, C#, C++, ATL/MFC, JavaScript/AJAX, Java, ColdFusion

Worked on UI and SDK for GoldFire Innovator (Goldfire Cognitive Search) https://ihsmarkit.com/products/enterprise-knowledge.html

### Tasks:

- MS SharePoint Portal Connector to enumerate document libraries/folders and download documents/metadata from SharePoint storage using WSS SOAP web-services
- PTC Windchill Connector to enumerate containers and download documents/metadata from Windchill server using PTC Info\*Engine SOAP web-services
- Application internationalization/localization (support of Japanese/Korean languages)
- ASP.NET Rich UI controls
- WDDX support .NET library
- Migration of web-interface of document processing/indexing application from ColdFusion server to ASP.NET 2.0 (C#)

Jun 2004 - Sep 2006

### **SCAND**

Outsourcing Software Development Company

Position: Software Developer

Technologies: ASP 3.0 (VBScript), JavaScript/AJAX, C#, C++/boost/pthread, Java/Spring, MS SQL Server, Oracle

Participated in 5+ projects of different sizes

## Request management system for advertising company

Complex intranet corporation application written on ASP with own C++ components running at server and custom COM components (Automation). Worked with Business Objects, Microsoft Office Products from ASP code, application back-end – Oracle.

Stack: ASP 3.0, VBScript, HTML, AJAX, COM

#### Tasks:

- CSRF prevention module based on COM component to use it from ASP pages
- Documents parser that renders HTML preview for uploaded documents in different formats (MS Word 97, MS Excel 97, MS PowerPoint, ZIP archives and so on)
- Request Tracking module with rich UI (AJAX, DHTML)

## SEO engine with custom web-crawler

Cross-platform (Windows/Linux) server application for search engines optimization tasks:

- back-links analysis based on Google, Yahoo and MSN search results
- site-maps generation for selected domains
- web-pages analysis to parse page tags information (H1, H2, B, STRONG..), mata information, external objects from this page (CSS, images, external scripts) and so on
- Web-interface for server was implemented on PHP

Stack: C++ (gcc/MSVS); Sockets; boost; zlib; MySQL C++ API; pthread; TCP/IP, HTTP protocols

Tasks:

• CSRF prevention module based on COM component to use it from ASP pages

Documents parser that renders HTML preview for uploaded documents in different formats

(MS Word 97, MS Excel 97, MS PowerPoint, ZIP archives and so on)

Request Tracking module with rich UI (AJAX, DHTML)

Dec 2002 - Jun 2004

Belarusian National Technical University

Location: Minsk, Belarus

Post-graduated student, teacher

Worked on robot simulation and analytical programming system – complex computer-aided modeling system for simulation of real industrial robots and their environment, calculation of robot kinematics, collision detection and analytical programming.

Also worked as teacher in the staff of BNTU and taught several IT-related courses: Computer Networking Fundamentals, Mathematical Fundamentals of Programming of Robots.

## Certifications

Nov 2004

Robotics exhibition at VVC (All-russian exhibition centre) - Presented own robot simulation system on "Robotics and mechatronics" conference

Feb 2013

MCSD: Web Applications (Microsoft)

Credential ID: 9631446

Expired: Feb 2015

Apr 2013

Machine Learning and Data Analysis from MIPT/Yandex (Coursera)

Credential ID: 7QJUMHP9B5UX

## **Articles**

Small and Reliable C++ HTTP Server with Complete ASP.NET Support

AWUI - a simple web user interface library with AJAX support

Interests

- Family
- Reading
- Whisky collecting