## Anton Kolonin at Projects 2005-2012

- 2012 Cloud Computing for Healthcare <u>http://www.zdorovieonline.ru/</u>
- 2010-2012 Real-time Data Recovery for Enterpise <u>http://www.quest.com/</u>
- 2009-2010 Artificial Intelligence in Music <u>http://www.rawtalentguitar.com/</u>
- 2008 Mobile Advertisement for Gigafone, <u>http://www.gigafone.com/</u>
- 2007 Text/Data Mining for Medical Industry
- 2006 Conversational Interface to Knova Knowledge Management
- 2005 Integration of ServiceWare and Kanisa Knowledge Management Architectures, <u>http://www.knova.com/</u>

#### Anton Kolonin at Projects 1989-2005

- 2002-2003 ServiceWare Knowledge Discovery Engine
   2001-2005 ServiceWare Cognitive Processor
- 1999-2001 WebMind at Intelligenesis Inc.
- 1997-1999 Real-time Motion Tracking for ProPro Ltd., <u>http://www.propro.ru</u>
- 1997-1999 Distributed Knowledge & Semantic Visualization, <a href="http://www.webstructor.net">http://www.webstructor.net</a>
- 1993-1996 Optical Character Recognition for CTC Ltd.
- 1993-2008 Space Work Graphical Data Visualization for IT Solutions, <u>http://itso.ru</u>
- 1989-2008 Geotomo Geophysical Tomography for IT Solutions, <a href="http://itso.ru">http://itso.ru</a>

## 2012 Cloud Computing for Healthcare

Implemented as services of Zdorovie Online <u>http://www.zdorovieonline.ru/</u>

Cloud based web service

- Personal data management for public users
- Healthcare automation for doctors
- Amazon
- Linux/Apache/MySQL/PHP

CTO Role
Project Management
Product Management
IT Management

Acting as CTO, responsible for collection of product requirements and management of development and delivery of cloud-based web service for public healthcare. Maintaining communications between top management, sales, marketing, industry experts and development, within company of 12 people leading 5 people. Taking care about IT infrastracture and secturity issues, Amazon Web Services and system administration.

## 2010-2012 Real-time Data Recovery

Part of product suite of http://www.quest.com/

 Data Protection and Real-time Recovery, Disaster Recovery
 Linux/CentOS Cluster storage
 Microsoft Visual Studio C/C++ and Driver Development Kit
 GCC/G++, JavaScript, PHP on Linux/CentOS

Product Owner Role
Project Management

Management of the project execution for development of enterprise-level Data Protection and Disaster Recovery software system. Management of the development process within international team inolving 12 people in Russian office, 4 people in California offices and 3 people in China office. Maintaining communications between top management, sales, marketing and customer support within ecosystem of international corporation.

#### 2009-2010 Artificial Intelligence in Music

Integrated in product of Raw Talent http://www.rawtalentguitar.com/

Signal Processing
Artificial Music Recognition
ASIO Audio Interface
Windows Media Framework
C/C++
C#

 Analysis and Research
 Invention, Design and Development of Algorithm and Software Engine

 Testing and fine-tuning of Algorithm and Software Engine

As a Key Researcher, responsible for invention, design, development, testing and fine-tuning of algorithm intended for artificial music recognition and evaluation, exposing API to the application development team and providing advisory for the rest of the team in respect to audio signal processing and pattern recognition.

#### 2008 Gigafone Mobile Advertisement

Integrated in products and services of Gigafone http://www.gigafone.com/

Symbian Mobile Applications
Windows Mobile Applications
Java

- J2EE
- WebLogic
- Apache
- Linux/Windows

Project Management
Analysis
Product Management

As a Project Manager, responsible for the management of development and deliveries of mobile client-server platform, coordinating the Product Management, Design, Development, Deployment and Support within distributed team of five international subsidiaries in Russia, China, Taiwan and Singapore (several subordinate project/product managers and tens of people).

#### 2007 Text/Data Mining for Medical Industry

Java
Allegro Common Lisp
Allegro Cache OO Database
Ruby on Rails
Postgre SQL
Linux/Windows Analysis
Design
Development
Testing
100% Impact on the project

As a Lead Software Engineer, responsible for analysis, design, development and testing of the text/data mining framework intended for classification and extraction of attributes for medical inventory items

## 2006 Conversational interface to Knova Knowledge Management

Integrated in products and services of Knova <a href="http://www.knova.com/">http://www.knova.com/</a>

- Pattern Recognition
  Natural Language Processing
  Java
  C/C++
  HTTP, Servlets
  Apache
  Tomcat
- Conversagent BuddyScript

Analysis
Design
Development
Testing
100% Impact on the project

As a Lead Software Engineer, responsible for the prototyping of conversational (chat bot) interfaces for the Knova knowledge management architecture

#### 2005 Integration of ServiceWare and Kanisa Knowledge Management Architectures

Integrated in products and services of Knova <u>http://www.knova.com/</u>

- Information Retrieval
   Taxonomies
   Case Based Reasoning
   C/C++
   Java
- Analysis
  Design
  Development
  10% Impact on the project

As a Lead Software Engineer, involved into analysis of key issues, conceptual and technical design of the integration of ServiceWare and Kanisa knowledge management architectures

## 2002-2003 ServiceWare Knowledge Discovery Engine

Integrated in products and services of Knova <a href="http://www.knova.com/">http://www.knova.com/</a>

- Text Mining (Information Retrieval, Information Extraction, Classification, Categorization, Clustering)
- Taxonomies
- C/C++, Java
- Inxight Categorizer, Thing Finder
- Verity K2
- Vivisimo Clustering

Team Leadership Analysis Design Development Testing 75% Impact on the project

As a Lead Software Engineer, responsible for the specification, design and leading development of the Knowledge Discovery Engine (integrated framework for interactive and automatic knowledge acquisition from the corporate content)

## 2001-2005 Cognitive Processor

Integrated in products and services of Knova <a href="http://www.knova.com/">http://www.knova.com/</a>

- Case-Based Reasoning
- Neural Networks
- Natural Language Processing
- Cross-platform C/Java
   Development
- Information Retrieval
- Integrated Knowledge Retrieval Testing Technology
   Windows (Selaris (ATX)
- Windows/Solaris/AIX

Team Leadership Analysis Design Development Testing 90% Impact on the project

As a Lead Software Engineer, responsible for research, analysis, design and development of Cognitive Processor - kernel component of Knowledge Server used in integrated knowledge management architecture

## 1999-2001 WebMind

The company went out of the market in 2001

- Rule-Based Inference
- Neural Networks
- Genetic Programming
- Natural Language Processing
- Information Retrieval
- Distributed Computing
- Visualization of Knowledge
- Java

Team Leadership
Analysis
Design
Development
Testing

As a Senior Artificial Intelligence Engineer, responsible for analysis, design and prototyping of different components of distributed artificial intelligence system intended for text classification, news filtering, market prediction, web content understanding and natural language comprehension - using genetic programming/algorithms, neural nets, personalization, numeric series prediction, logic programming and data visualization

### 1997-1999 Real-time Motion Tracking

Integrated in products and services of ProPro Ltd. <u>www.propro.ru</u>

- Invention, design and development of the realtime motion-capturing framework.
- Pattern Recognition
- High-performance C programming and code optimization

- Algorithm Invention
- Analysis
- Design
- Development
- Testing
- 100% Impact on the project

Designed and developed motion tracking (dynamic pattern recognition) algorithm and software intended to capture motion of selected objects with real-time streamed video data

## 1997-1999 Distributed Knowledge & Semantic Visualization

Information is available at <u>http://www.webstructor.net/</u>

- Semantic NetworksCompiler/Interpreter
  - Development
- 2D/3D Graphics
- Distributed Computing
- Java, Servlet and HTTP Development

- Algorithm InventionAnalysis
- Design
- Development
- Testing
- 95% Impact on the project

Designed and developed peer-to-peer distributed system for knowledge input and visualization. Entire system consists of loosely connected servlets, applets, client, server and peer-to-peer applications maintaining distributed semantic net of knowledge

## 1993-1996 Optical Character Recognition

Project has been closed because of lack of funding

Pattern Recognition
 Integral Geometry
 High-performance C programming and code optimization
 2D Graphics

Algorithm Invention
Analysis
Design
Development
Testing
100% Impact on the project

Invented, designed and developed the prototype software application relying on the original character recognition algorithm

# 1993-2008 Space Work - Graphical Data Visualization

Integrated in products and services of IT Solutions <u>http://itso.ru</u>

2D/3D Graphics
Java
C
High-performance programming and code optimization

Algorithm Invention
Analysis
Design
Development
Testing
85% Impact on the project

Proposed, designed and developed the software system for different types of scientific, geological and geophysical data visualization

## 1989-2008 Geophysical Tomography

Integrated in products and services of IT Solutions <u>http://itso.ru</u>

 Integral Geometry
 Inverse Problems
 Digital Signal Processing
 Computer Tomography
 High-performance C programming and code

- Algorithm Invention
- Analysis
- Design
- Development
- Testing
- 90% Impact on the project

#### 2D Graphics

optimization

Invented, designed and developed the integrated application software system intended for the various sorts of geophysical data processing, relying on the set of original algorithms