Alexey Ott's Curriculum Vitae

Personal Information

- **Name**: Alexey (Alex) Ott

- **Address**: Paderborn, Germany

- **E-mail**: alexott@gmail.com (please use it as primary contact)

- **Phone**: +4917650439409 (mobile)

- **Citizenship**: German, Russian

- **Date of Birth**: 1974

- **Personal site**: http://alexott.net/en/

- **LinkedIn profile**: http://www.linkedin.com/in/alexott

- Blog: http://alexott.blogspot.com

Summary

- Significant experience in products development for information security;

- Leadership in software development projects (commercial & open-source);

- Software architect and developer using different programming languages & technologies (cloud, on-premise);

- Business vision of tasks & requirements, results-oriented.

Work Experience

- **Senior Software Architect** at McAfee/Intel Security
  Dates (from-to): 10.2016-now
  Name and address of employer: McAfee[1], 33100 Paderborn, Germany
  Positions held: Solution Architect
  Type of business: Software Development
  Main activities and responsibilities:

    - Architecture of the CDP (Cloud Data Protection)[2] solution (implementing elements of CASB), involving multiple teams & products. Communication with stakeholders, preparing the architecture, tasks definition & coordination for involved teams (very geo-distributed), evaluation of technologies & prototyping, implementation of some components (Java, C++, Clojure, Docker-based microservices, . . .);
    - Development of URL & Content Categorization system using the range of machine learning & big data technologies (Apache HBase, Apache Solr, Apache Spark). Implementing the full machine learning workflow - model design, data collection & cleanup, feature extraction & selection, model evaluation, production deployment. Development of experimental models with Keras, XGBoost, scikit-learn, other frameworks.

- **Software Architect** at Intel Security. *(subsidiary of Intel Corporation)*
  Dates (from-to): 07.2014–09.2016
  Name and address of employer: Intel Security[3], 33100 Paderborn, Germany
  Positions held: Software Architect
  Type of business: Software Development
  Main activities and responsibilities:

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[1] http://mcafee.com
[2] https://www.mcafee.com/us/beta/public-betas/data-protection/cloud-data-protection.aspx
[3] http://intelsecurity.com

- Architecture and development of new URL & Content Categorization system using the range of machine learning & big data technologies (Apache HBase, Apache Solr, Apache Spark). Implementing the full machine learning workflow - model design, data collection & cleanup, feature extraction & selection, model evaluation, production deployment. Introduction of new system lead to greater coverage of the categorized resources, increased customer satisfaction, and decreasing of number of escalations;
  - Architecture & implementation of the log processing system (Apache Kafka, Apache Spark Streaming, Elasticsearch) that is base for McAfee Cloud Visibility[4] offering & reporting in Web Gateway Cloud Service[5].
  - Architecture of the CDP (Cloud Data Protection) solution involving multiple teams & products. Communication with stakeholders, preparing the architecture, tasks definition for involved teams, evaluation of technologies & prototyping, implementation of some components (Java, C++, Clojure).

- **Mentor** at Google Summer of Code 2014
  Dates (from-to): 05.2014–08.2014
  Main activities and responsibilities: Mentor for the project "Incanter and core.matrix integration"

- **Software Architect** at *McAfee, Inc. (subsidiary of Intel Corporation)*
  Dates (from-to): 03.2013–06.2014
  Name and address of employer: McAfee, Inc[6]. 33100 Paderborn, Germany
  Positions held: Software Architect
  Type of business: Software Development
  Main activities and responsibilities:

  - Architecture and development of identity management & CASB (cloud access security broker) components inside McAfee Web Gateway: SSO (Single Sign-On), Cloud Storage Encryption, etc.;
  - Coordination of development with other teams, requirements analysis, tasks definition, etc.

- **Principal Software Engineer** at *McAfee, Inc. (subsidiary of Intel Corporation)*
  Dates (from-to): 04.2011–02.2013
  Name and address of employer: McAfee, Inc[7]. 33100 Paderborn, Germany
  Positions held: Principal Software Engineer
  Type of business: Software Development
  Main activities and responsibilities:

  - Architecture and development of web-filtering and data leak prevention software (McAfee Web Gateway);
  - Provide training & support for 3rd party developers;
  - Quality "owner", responsible for introduction of quality-improving techniques and methodologies (code reviews, unit testing, analysis of existing problems & errors, continuous integration, static code analysis, etc.)—together with other organizational activities this lead to increase of product's quality, decrease number of customer escalations.

- **Author & Editor** at *Practice of Functional Programming (Journal)*
  Dates (from-to): 04.2009–04.2011
  Main activities and responsibilities:

  - Author of several articles on functional programming (Clojure, Scheme, etc.)
  - Preparation of new journal issues

- **Senior Software Developer** at *McAfee, Inc.*
  Dates (from-to): 01.2007–03.2011 (2007–2008—Secure Computing Corp.)
  Name and address of employer: McAfee, Inc[8]. 33100 Paderborn, Germany
  Positions held: Senior Software Developer
  Type of business: Software Development
  Main activities and responsibilities:

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[4] https://www.mcafee.com/us/products/cloud-visibility-community-edition.aspx
[5] https://www.mcafee.com/us/products/web-gateway-cloud-service.aspx
[6] http://www.mcafee.com
[7] http://www.mcafee.com
[8] http://www.mcafee.com

- Development of content-filtering software (Webwasher/McAfee Web Gateway);
- Architect of new versions of software—collecting requirements, creating top-level view, planning development activity, etc.

- **Head of Software development group & architect** at *Jet Infosystems*
  Dates (from-to): 10.2001–11.2006
  Name and address of employer: Jet Infosystems[9]. B. Novodmitrovskaya, 14/1, 127015 Moscow, Russia
  Positions held: Head of Software development group, System Architect
  Type of business: System Integration
  Main activities and responsibilities:

  - Head of development group (9 people), lead of of development projects;
  - Architect and development of custom and off-the-shelf software (C/C++, Scheme, Lisp, Java);
  - Participation in marketing activity, present solutions for customers;
  - Infrastructure architect (data & process integration projects, network projects, mail projects).
  - **Projects done**:
    * **Mailboss** (aka SMAP "Dozor-Jet") – mail filtering and archiving software (architect and developer, leader of development process); https://jet.su/en/services/information_security/;
    * **Webboss** (aka SKVT "Dozor-Jet") – web filtering software (architect and develop software, lead the development process); https://jet.su/en/services/information_security/;
    * **BeepayXP** – payment processing software for the Vimpelkom – large Russian Mobile Company (Data architect, server infrastructure architect, project coordinator);
    * **File-NG** – data type detection library;
    * KC IAS - lead architect in data and process integration pilot project (on the base of Sun Java CAPS) for a Russian Central bank. Business process analysis, Project architecture design, product selection.
    * Content-type detection add-on for the Cerberus software (Mail filtering software for Lotus Notes);
    * Custom Web Portals for the government departments (architect solutions, project coordinator);
    * Mail projects for different clients (Infrastructure architect, project coordinator);
    * Custom software solutions (Development in C/C++, Java, Scheme).

- **Teaching assistant & lecturer** at *Tomsk Polytechnic University*
  Dates (from-to): 09.1998–08.2001
  Name and address of employer: Tomsk Polytechnic University, Lenina Str, 30, Tomsk, Russia
  Positions held: Assistant lecturer at Technical Physic's department (Teacher)
  Type of business: Education
  Main activities and responsibilities:

  - Provide trainings for students in branch of thermodynamic, molecular physic, computer modeling of physical processes;
  - Administration of faculty network (mix of Unix and Windows servers) – 1500 users;
  - Development of Intranet applications.

- **Developer** at *E-Compare Corp.*
  Dates (from-to): 10.2000 – 4.2001
  Name and address of employer: E-Compare Corp, USA
  Positions held: Developer (remote work)
  Type of business: Software Development
  Main activities and responsibilities:

  - Writing modules for search engine (Perl, Oracle);
  - Web programming (HTML, JavaScript).

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[9]http://www.jetinfo.com

Education and trainings

- **Engineer** at *Tomsk Polytechnic University*, Russia
  Dates (from-to): 1991–1997
  Title of qualification awarded: Physic (Engineer)
  Name and type of organisation: Physical-technical department of Tomsk Polytechnic University
  Principal subjects: Physic and Chemistry of Plasma, Mathematics
  Level in national classification: Higher education diploma

- **MBA** at *Magdeburg University*, Germany
  Dates (from-to): 2003–2005
  Title of qualification awarded: Master of Business Administration
  Name and type of organisation: Deutsches MBA Program, Magdeburg University, Germany
  Principal subjects: General management, Finance, Marketing

- Online courses:
  An Introduction to Artificial Intelligence[10] (Stanford). Score: 89%
  Machine Learning[11] (Stanford). Score: 100%
  Natural Language Processing[12] (Stanford/Coursera). Score: 93%
  Heterogeneous Parallel Programming[13] (University of Illinois at Urbana-Champaign/Coursera). Score: 100% with distinction
  Computing for Data Analysis[14] (Johns Hopkins Bloomberg School of Public Health/Coursera). Score: 100% with distinction
  Introduction to Data Science[15] (University of Washington/Coursera). Score: 90.1% with distinction
  Model Thinking[16] (University of Michigan/Coursera). Score: 95% with distinction
  Data Mining with Weka[17] (University of Waikato). Score: 100%
  Functional Programming Principles in Scala[18] (École Polytechnique Fédérale de Lausanne/Coursera): Score: 100% with distinction
  Pattern Discovery in Data Mining[19] (University of Illinois at Urbana-Champaign/Coursera). Score: 90.6%
  Cluster Analysis in Data Mining[20] (University of Illinois at Urbana-Champaign/Coursera)
  Mining of Massive Datasets[21] (Stanford/Coursera)
  CS100.1x Introduction to Big Data with Apache Spark[22] (Berkley/edX). Score: 100%
  CS190.1x Scalable Machine Learning[23] (Berkley/edX). Score: 100%
  UT.5.02x LAFF: Linear Algebra - Foundations to Frontiers[24] (University of Texas/edX)
  Introduction to Natural Language Processing[25] (University of Michigan). Score: 95.2%

Technical skills and competences

Patents

- Proxy Authentication for Single Sign-On[26]. Status: Application

Presentations

- 2 times presenter on Intel Software Professionals Conference (SWPC) on topics of software quality, and URL categorization. SWPC is internal conference with very rigorous selection of presentations;

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[10] http://www.ai-class.com/
[11] https://www.coursera.org/course/ml
[12] https://www.coursera.org/course/nlp/
[13] https://www.coursera.org/course/hetero
[14] https://www.coursera.org/course/compdata
[15] https://www.coursera.org/course/datasci
[16] https://www.coursera.org/course/modelthinking
[17] https://weka.waikato.ac.nz/dataminingwithweka/
[18] https://www.coursera.org/course/progfun
[19] https://www.coursera.org/course/patterndiscovery
[20] https://www.coursera.org/course/clusteranalysis
[21] https://www.coursera.org/course/mmds
[22] https://courses.edx.org/courses/BerkeleyX/CS100.1x/1T2015/info
[23] https://courses.edx.org/courses/BerkeleyX/CS190.1x/1T2015/info
[24] https://courses.edx.org/courses/UTAustinX/UT.5.02x/1T2015/info
[25] https://www.coursera.org/account/accomplishments/records/sXxgywdRUTjpRAC7
[26] http://patents.justia.com/patent/20160205089

- 2 times presenter at McAfee Innovation Summit - global internal conference about innovative solutions;

- Multiple presentations on small conferences & user groups on different topics - Clojure, Emacs, . . .

Programming languages and software development skills

- C and C++ – more than 15 years (mostly in Unix – Linux, Sun Solaris, HP-UX, FreeBSD)

- Java – 10 years (commercial & personal projects)

- Clojure - 8 years (commercial & personal projects)

- Other functional languages:

    - Scheme and Common Lisp – 8 years (commercial & personal projects)
    - Erlang - 2 year (personal projects, currently inactive)
    - Haskell - 1 year (personal projects, currently inactive)
    - OCaml and F# – 2 years (personal projects, currently inactive)
    - Scala (personal projects)

- Perl – 5 years (currently inactive)

- Go – 1 year (currently inactive)

- SQL – 7 years (Oracle and PostgreSQL)

- UML modeling in complex projects

- Shell scripting languages - bash, sh, zsh, . . .

- NoSQL databases: Apache HBase, Apache Solr, Elasticsearch, CouchDB.

- Continuous integration using Jenkins

- Static code analysis using Coverity

- Test-driven development (TDD) using different frameworks - JUnit, Mockito, GMock, GTest, Boost.Test, . . .

Other computer-related skills

- Administration of UNIX-like OSes – Linux (since 1996), Sun Solaris (2000–2006), HP-UX (2001–2006), FreeBSD (2000–2006);

- Administration of Windows OSes – NT4, 2000, XP, . . . ;

- Administration of relational databases (Oracle and PostgreSQL);

Open Source projects

I'm contributing to different open source code projects including:

- Clojure-related: Incanter, Leiningen, swank-clojure, Clojure, clojure-hadoop, labrepl;

- Emacs-related: el-get, magit, Muse, GNU Emacs, CEDET;

- ALTLinux—Linux distribution, package maintainer (2001–2004)

- Catdoc—Open-source converter for MS Office files, development of PPT & XLS converters;

- Dansguardian – web-filtering software;

- openfwtk—application level firewall;

- Russian documentation for Linux – author of different articles about Linux.

Information about other open source projects you can find on github[27] and ohloh[28].

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[27]http://github.com/alexott
[28]https://www.ohloh.net/accounts/alexott

Certification

- Authorised "ALTLinux specialist", certificate number 0x000C;

- Brainbench certification (Brainbench ID 5075245[29]):

    - Master C++
    - Master C++ Fundamentals
    - Master Unix Programming
    - Master Linux Programming
    - Master Network Authentication
    - Master Unix Administration (General)
    - Master Linux Administration (General)
    - Master Linux Administration (Redhat)
    - C Programmer

Personal skills and competences

Languages

- **Russian**: Mother tongue

- **English**: Good reading, writing & verbal skills

- **German**: Good reading, basic writing and verbal skills

Social and organizational skills and competences

- Ability to work in multinational teams, work with foreign customers

- Ability to work in teams (also geographically distributed) and alone

- Experience in managing of software development teams, coordinating different departments to make projects.

- Participation in Open Source projects

Other personal info

- **Driving license**: present

- **Artistic skills and competences**:

    - Author of different articles, in physics and computer-related branches (functional programming, Emacs, programming);
    - Co-author of Russian translation of "GNU Emacs manual", "Practical Common Lisp", "Types and programming languages", and some other.

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[29]http://www.brainbench.com/xml/bb/transcript/public/viewtranscript.xml?pid=5075245