

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: McAfee¹, 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 Security³, 33100 Paderborn, Germany

Positions held: Software Architect

Type of business: Software Development

Main activities and responsibilities:

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:

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 Infosystems⁹. 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 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).

⁹<http://www.jetinfo.com>

Education and trainings

- **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
- **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
- 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;

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.

²⁷<http://github.com/alexott>

²⁸<https://www.ohloh.net/accounts/alexott>

Certification

- Authorised “ALTLinux specialist”, certificate number 0x000C;
- Brainbench certification ([Brainbench ID 5075245](https://www.brainbench.com/xml/bb/transcript/public/viewtranscript.xml?pid=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 management of development teams
- Practical experience in management of software projects
- Participation in Open Source projects

Other personal info

- **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.

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