

# Alexey Ott's Curriculum Vitae

## Personal Information

- **Name:** Alexey (Alex) Ott
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- **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>
- **Github:** <https://github.com/alexott>

## 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

- **Solutions Architect** at DataStax  
**Dates (from-to):** 01.2018-now  
**Name and address of employer:** [DataStax](http://datastax.com)<sup>1</sup>, 33100 Paderborn, Germany  
**Positions held:** Solutions Architect  
**Type of business:** Software Development/Big Data  
**Main activities and responsibilities:**
  - Working with customers on delivery of solutions based on the DataStax Enterprise (Apache Cassandra-based database, Spark, Solr, ...), including architectural reviews, building prototypes, implementation guidance, pre- & post-release health checks, analysis of performance & other problems, providing guidance on fixing them, etc.;
  - Pre-sales activity - discussion of possible architectures with customers, helping prepare sound technical proposals, ...;
  - Providing feedback to product teams on new functionality requested by customers, and general feedback on existing functionality.
- **Senior Software Architect** at McAfee/Intel Security  
**Dates (from-to):** 10.2016–12.2017  
**Name and address of employer:** [McAfee](http://mcafee.com)<sup>2</sup>, 33100 Paderborn, Germany  
**Positions held:** Solution Architect  
**Type of business:** Software Development  
**Main activities and responsibilities:**

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<sup>1</sup><http://datastax.com>

<sup>2</sup><http://mcafee.com>

- Architecture of the **CDP (Cloud Data Protection)**<sup>3</sup> 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**<sup>4</sup>, 33100 Paderborn, Germany  
**Positions held:** Software Architect  
**Type of business:** Software Development  
**Main activities and responsibilities:**
    - 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**<sup>5</sup> offering & reporting in **Web Gateway Cloud Service**<sup>6</sup>.
    - 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**<sup>7</sup>. 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**<sup>8</sup>. 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);

<sup>3</sup><https://www.mcafee.com/us/beta/public-betas/data-protection/cloud-data-protection.aspx>

<sup>4</sup><http://intelsecurity.com>

<sup>5</sup><https://www.mcafee.com/us/products/cloud-visibility-community-edition.aspx>

<sup>6</sup><https://www.mcafee.com/us/products/web-gateway-cloud-service.aspx>

<sup>7</sup><http://www.mcafee.com>

<sup>8</sup><http://www.mcafee.com>

- 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<sup>9</sup>. 33100 Paderborn, Germany  
**Positions held:** Senior Software Developer  
**Type of business:** Software Development  
**Main activities and responsibilities:**
    - 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<sup>10</sup>. 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/](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/](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:**

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<sup>9</sup><http://www.mcafee.com>

<sup>10</sup><http://www.jetinfo.com>

- 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).

## 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**<sup>11</sup> (Stanford). Score: 89%
  - Machine Learning**<sup>12</sup> (Stanford). Score: 100%
  - Natural Language Processing**<sup>13</sup> (Stanford/Coursera). Score: 93%
  - Heterogeneous Parallel Programming**<sup>14</sup> (University of Illinois at Urbana-Champaign/Coursera). Score: 100% with distinction
  - Computing for Data Analysis**<sup>15</sup> (Johns Hopkins Bloomberg School of Public Health/Coursera). Score: 100% with distinction
  - Introduction to Data Science**<sup>16</sup> (University of Washington/Coursera). Score: 90.1% with distinction
  - Model Thinking**<sup>17</sup> (University of Michigan/Coursera). Score: 95% with distinction
  - Data Mining with Weka**<sup>18</sup> (University of Waikato). Score: 100%
  - Functional Programming Principles in Scala**<sup>19</sup> (École Polytechnique Fédérale de Lausanne/Coursera): Score: 100% with distinction
  - Pattern Discovery in Data Mining**<sup>20</sup> (University of Illinois at Urbana-Champaign/Coursera). Score: 90.6%
  - Cluster Analysis in Data Mining**<sup>21</sup> (University of Illinois at Urbana-Champaign/Coursera)
  - Mining of Massive Datasets**<sup>22</sup> (Stanford/Coursera)
  - CS100.1x Introduction to Big Data with Apache Spark**<sup>23</sup> (Berkeley/edX). Score: 100%
  - CS190.1x Scalable Machine Learning**<sup>24</sup> (Berkeley/edX). Score: 100%

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<sup>11</sup><http://www.ai-class.com/>

<sup>12</sup><https://www.coursera.org/course/ml>

<sup>13</sup><https://www.coursera.org/course/nlp/>

<sup>14</sup><https://www.coursera.org/course/hetero>

<sup>15</sup><https://www.coursera.org/course/compdata>

<sup>16</sup><https://www.coursera.org/course/datasci>

<sup>17</sup><https://www.coursera.org/course/modelthinking>

<sup>18</sup><https://weka.waikato.ac.nz/dataminingwithweka/>

<sup>19</sup><https://www.coursera.org/course/progfun>

<sup>20</sup><https://www.coursera.org/course/patterndiscovery>

<sup>21</sup><https://www.coursera.org/course/clusteranalysis>

<sup>22</sup><https://www.coursera.org/course/mmds>

<sup>23</sup><https://courses.edx.org/courses/BerkeleyX/CS100.1x/1T2015/info>

<sup>24</sup><https://courses.edx.org/courses/BerkeleyX/CS190.1x/1T2015/info>

UT.5.02x LAFF: Linear Algebra - Foundations to Frontiers<sup>25</sup> (University of Texas/edX)  
Introduction to Natural Language Processing<sup>26</sup> (University of Michigan). Score: 95.2%

## Technical skills and competences

### Patents

- [Proxy Authentication for Single Sign-On](#)<sup>27</sup>. 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;
- 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);
- Python - 3 years (mostly personal projects);
- Other languages (mostly not active right now): Scheme and Common Lisp (8 years, commercial & personal projects), Erlang (2 years, personal projects), Haskell (1 year, personal projects), OCaml and F# (2 years, personal projects), Scala (personal projects), Go (1 year, personal projects), Perl (5 years, personal & commercial projects), 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);

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<sup>25</sup><https://courses.edx.org/courses/UTAustinX/UT.5.02x/1T2015/info>

<sup>26</sup><https://www.coursera.org/account/accomplishments/records/sXxgywdRUTjpRAC7>

<sup>27</sup><http://patents.justia.com/patent/20160205089>

## 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](#)<sup>28</sup> and [ohloh](#)<sup>29</sup>.

## 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.
- **Hobbies:**
  - Sport: Running, Cycling, Hiking

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<sup>28</sup><http://github.com/alexott>

<sup>29</sup><https://www.ohloh.net/accounts/alexott>