

# Dirk Jagdmann

## Contact

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## Employment

- May 2017 – present Principal Lead Linux developer at [Akamai Technologies](#), Santa Clara, CA
- Implement security features for [Bot Manager](#): encryption of customer data for safe transport, HTTP body manipulation, HTTP request routing
  - Design/implement a SaaS system for HTTP request processing: distributed key/value store per datacenter, [Lua](#) engine for HTTP request manipulation, self monitoring for rapid exception handling, crash resiliency from HTTP proxy server
- Feb 2010 – Apr 2017 Linux developer at [Riverbed Technology](#), Sunnyvale, CA
- Worked on the SteelFusion product, mainly on the [iSCSI](#) protocol implementation and the new [NFS](#) feature. Multi-threaded Linux C++ application.
  - Worked on [Microsoft Exchange](#) optimization of the SteelHead appliance ([MAPI](#) protocol). Implemented support for Outlook Anywhere (RPC over HTTP). SteelHead is a heavily multi-threaded Linux C++ application to handle thousands of MAPI TCP connections.
  - Maintained the Riverbed internal version of [Wireshark](#) (implemented in C). Changes to HTTP, SSL, DCE/RPC and MAPI dissectors. Implemented new dissectors for Riverbed internal protocols. Working on Linux, Windows and OsX.
- Oct 2007 – Dec 2009 Lead Linux developer at [NeoCatena Networks Inc](#), Sunnyvale, CA
- Architected and implemented the [RF-Wall](#) product, a [RFID](#) security appliance. The RF-Wall system is a collection of server processes interfacing RFID readers, evaluating and possibly manipulating RFID tags as they are handled by the readers. Written in C++ and using [PostgreSQL](#) as data storage. The appliance uses several TCP and UDP network protocols to interface readers and back end systems.
- Sep 2005 – Jul 2007 Lead [FreeBSD](#) developer at [Secion GmbH](#) working on software for [Arcor/Vodafone](#), Hamburg, Germany
- Development of a [DynDNS](#) System in a high-availability setup: [mod\\_perl](#) front end, [PostgreSQL](#) data storage, dynamically configured [bind](#) nameservers.
  - Architected and implemented a high-volume download platform for voice mail. This is a high-availability system of 15+ nodes in multiple locations, communicating with XML over HTTP requests, converting MP3 files. Implemented in [perl](#) and C++.
- Jul 2003 – Aug 2005 Linux software developer at [DN-Systems GmbH](#), Hildesheim, Germany
- Implementation of a web-application for medical services accounting with [perl](#), [PostgreSQL](#) on Linux, and mobile data entry with [iPAQ](#) PDAs.
  - Maintained and improved the [RFDump](#) tool, a [RFID](#) security program for Linux written in [GTK](#) and C.

## Employment (cont)

Jul 1998 – Jul 2001 Linux administrator and software developer at [Reese-Data-Exchange](#), Hamburg, Germany

- Installation and maintenance of web, FTP and mail-servers.
- Development of web-applications with [perl](#) and [PostgreSQL](#): real estate sales portal for a local bank, online-shopping sites.

I am a full-stack Linux software developer. I have successfully debugged and fixed the weirdest build issues, software issues, memory corruptions or other incompatibilities. I have used CVS, SVN, Perforce and GIT version control. Debugging with gdb, the Visual Studio debugger or by adding `printf()` until it works is part of my daily routine. Writing unit tests and working in a continuous integration environment is second nature to me. I like participating in the full circle of software development; designing a feature from scratch, writing the source code, testing the solution and finally shipping it to customers.

Reading clearly written source code is appreciated by everyone. I strive to also write such code. And I also believe in commenting my source code to fill the gap between requirements and designs, and the actual implementation. Donald Knuth's [literate programming](#) should be the norm.

## Education

Sep 1997 – Aug 2005

[Hamburg University of Applied Sciences](#)

Diplom (FH) (bachelor's degree) in [Computer Science](#).

## Skills

C/C++ development, [perl](#) Development, Linux work environment

[PostgreSQL](#) and PL/pgSQL.

network development: TCP/IP, HTTP, MAPI, DCE/RPC, UDP (broadcast/multicast).

Linux/FreeBSD development and operating system customization.

## Contributions to Free Software Projects

[Wireshark](#)

Network protocol analyzer, changes mainly to HTTP, SSL and DCE/RPC dissectors.

[srm](#)

Secure file deletion for POSIX systems.

[few](#)

program to interactively filter log files with regular expressions and show the results on the text mode console (terminal).

[multimidicast](#)

Transmits and receives MIDI data via UDP multicast on the LAN.

## Websites

<http://llg.cubic.org/>

Website containing free software developed by me.

<http://dirk.jagdmann.de/>

Personal website concerning professional topics.

<http://www.cubic.org/~doj/>

Personal website for general computer related topics.

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