## Shane Kerr

shane@time-travellers.org +31 64 633 6297 Bennebroekstraat 17-i 1058 LJ Amsterdam The Netherlands

## Computer Skills

#### Programming Languages:

Expert: Python (version 2 or 3), C

Intermediate: Perl, Java, C++, 80x86 assembly

#### Network Programming:

Expert in DNS, DHCP, FTP in particular (implemented these) and socket level development in general, with both multi-process, multi-threaded, and event-driven models

#### Database Programming:

Designed and optimized schemas and code for PostgreSQL, MySQL, and Oracle, using Python, Perl, C, and Java.

## **Professional Experience**

## <u>Internet Systems Consortium (ISC), Redwood City, California</u> Director of DNS Software, September 2012 – present

- Responsible for BIND 9 and BIND 10 development
- Managed BIND 9 development team, consisting of 3 ISC programmers, across 3 time zones
- Managed BIND 10 development team, consisting of 3 ISC programmers, and 4 non-ISC contributors from 2 other companies, across 4 time zones
- Conducted occasional review of BIND 9 and BIND 10 software in C, C++, and Python
- Developed and maintained product roadmaps and project plans
- Met with key customers to discuss requirements and coordination

## BIND 10 Engineering Manager, April 2009 – September 2012

- Built and managed development team of 4 ISC programmers plus an ISC release engineer, and 8 non-ISC contributors from 3 other companies, across 7 time zones
- Made BIND 10 ISC's most open and transparent project; was responsible for adopting public development e-mail lists, chat rooms, a collaborative development web site, and an externally visible source code repository
- Identified BIND 10's high-level requirements and designed BIND 10 architecture

• Implemented portions of BIND 10 software in C++ and Python

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- Reported progress to BIND 10 Steering Committee, an oversight body of BIND 10 project sponsors
- Conducted public outreach, including things like presenting BIND 10 at various forums, giving interviews to media, and blogging

### Afilias Canada Corp., Toronto, Ontario

Developer, CPR, March 2008 - April 2009

- Evaluated and deployed DNSSEC software for signing ORG
- Designed and implemented DNS metadata SQL propagation system
- Identified and fixed bugs in DNS software (BIND, NSD, and PowerDNS)
- Built tools to find and diagnose DNS network and system problems
- Participated in various forums to represent Afilias' interests

### Internet Systems Consortium (ISC), Redwood City, California

Software Engineer, March 2006 – February 2008

- Developed and maintained ISC DHCP software, including implementing DHCPv6.
- Developed and maintained BIND (DNS software).
- Maintained IRRToolSet (routing registry software).
- Participated in IETF for new DNS and DHCP protocol standards.

### RIPE Network Coordination Centre (RIPE NCC), Amsterdam

Software Engineering Department Manager, January 2004 – February 2006

- Managed team of 12 software engineers, and 2 user support specialists.
- Interacted with RIPE community, presenting database and software updates.
- Prioritized software projects for internal and external customers.
- Directed purchasing and implementation of off-the-shelf solutions.

#### Database Department Manager, January 2003 - December 2003

- Managed team of 5 database software engineers.
- Interacted with RIPE community, presenting database updates.

#### Senior Database Software Engineer, July 2001 - December 2002

- Organized on-going software development improvements, resulting in improved documentation and reproducible development.
- Initiated software testing procedures, resulting in improving reliability and confidence of software.
- Provided user support, both internal and external.
- Maintained database software.
- Administered database.

### Database Software Engineer, July 2000 - July 2001

- Database administration, including MySQL administration, Perl and shell scripting for various projects, monitoring and fixing problems.
- Provided user support, answering e-mails concerning problems with updating, accessing, and using the RIPE database, as well as the related policies.

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Finalized development of new RIPE Whois database.

### American Registry for Internet Numbers (ARIN), Chantilly, Virginia Senior Software Engineer, August 1999 - July 2000

- Liaison between President and engineering staff.
- Recommended and assigned projects to specific engineers.
- Responsible for planning and time-lines.
- Tracked and reported projects' status.
- Organized design meetings, code reviews, internal training, and so on.
- Initial point of contact for information requests, reports, new tools.
- Designed, implemented and maintained software and systems.

#### Software Engineer, November 1998 - August 1999

• Designed, implemented, and maintained software and systems.

#### Call Technologies, Inc., Reston, Virginia

Systems Programmer, May 1993 - November 1998

- Wrote communication protocols, API's, and programs.
- Wrote and designed telephony and messaging applications and utilities.
- Installed systems on site, both in the USA and Europe.
- Delivered technical presentations to customers and trainees.

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## **Community Positions**

RIPE IPv6 Working Group co-chair, March 2010 – present RIPE Programme Committee member, September 2012 – present

#### **Publications and Recent Presentations**

- Programming Languages for BIND 10 (February 2013)
- 1-day DNSSEC training for .my Domain Registry (June 2012)
- BIND 10 presented at CENTR, RIPE, IEPG, ISOC, CNNIC, GTER (2009 to 2012)
- ORG DNSSEC Status (Presentation at IEPG, November 2008)
- IRRToolSet Update (Presentations at UKNOF 12, February 2009, and RIPE 57, October 2008)
- IETF Response to the Kaminsky DNS Vulnerability, *IETF Journal Volume 4 Issue 2* (October 2008)
- IETF Support for IPv6 Deployment, IETF Journal Volume 3 Issue 2 (October 2007)
- RFC 4698 IRIS: An Address Registry (areg) Type for the Internet Registry Information Service (October 2006)

While a manager at the RIPE NCC presentations were given at least 3 times per year to the RIPE community.

# **Professional Training**

Crucial Conversations, April 2013

The 7 Habits of Highly Effective People: Interdependence, Franklin Covey, September 2011

The 7 Habits for Managers, Franklin Covey, October 2010

Time and Priority Management, Learning Tree, June 2005

Java Programming, Learning Tree, April 2005

Using Microsoft Project, November 2004

Project Leadership, Management and Communications, June 2003

Software Quality Assurance, Learning Tree, June 2002

Software Testing and Inspection Methods, Learning Tree, November 2001

Software Requirements and Prototyping, George Mason University, Fall term 1999

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#### Education

Master of Science in Computer Science, graduated May 1998 George Mason University, Fairfax, Virginia, US

Bachelor of Science in Computer Science, graduated May 1993 Virginia Polytechnic Institute and State University, Blacksburg, Virginia, US

## Biography and Additional Information

Born: 31 May 1972

Sex: Male Marital Status: Married

Children: 1 son, 1 step-daughter

Citizenship: USA

Living in the Netherlands for 12 years. Working from home for since March 2006. Native English speaker, conversational Dutch speaker. Have valid Dutch residence and work permit for unlimited time.

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