

Tara L Andrews

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TECHNICAL SKILLS

Programming languages: Perl (functional and object-oriented), Python, Java, C, Scheme

Operating system development: Unix/Linux, Mac OS X

Data formats: HTTP, HTML, XML, Unicode

Databases: MySQL, other proprietary SQL-based systems

Network technologies: TCP/IP, DNS/BIND, HTTP, SMTP, NFS

EDUCATION

Degree qualifications:

Master of Philosophy in Byzantine Studies,

University of Oxford, Oxford, United Kingdom (expected) 2005

Bachelor of Science in Humanities and Engineering,

Massachusetts Institute of Technology, Cambridge, MA, 1999

Additional coursework:

"Network and Computer Security", Ron Rivest,

Massachusetts Institute of Technology, Cambridge, MA, 2001

SUMMARY

Systems and software engineer skilled in functional and object-oriented programming, Linux database application development, and scalable process design. Strong interpersonal and writing skills, strong ability to work well under pressure, be flexible, and meet deadlines, and very good at absorbing and understanding new information about complex systems.

EMPLOYMENT

FREELANCE SOFTWARE ENGINEER, Oxford, United Kingdom 2003-present

Contract work, Best Practical Solutions, Cambridge, MA (2004-present)

Skills used: Perl, HTML::Mason, MySQL, Javascript

- Designed, implemented, tested, and maintained extensions and core improvements to a world-class open-source issue tracking system, on an as-needed basis

Projects included:

- Design and implementation of an invoice tracking extension for RT
- Access control improvements
- Substantial and wide-ranging improvements to RTFM, the RT documentation manager

Occasional work, University of Oxford, Oxford, UK (2003-present)

Skills used: Perl, Unicode, MySQL, Javascript

- Performed maintenance work and added Unicode support to a suite of tools to create Japanese self-study CD-ROMs
- Made improvements to an online dinner reservation system for an Oxford college
- Designed and implemented a conversion system to make archaeological database records ready for publication

AKAMAI TECHNOLOGIES, Cambridge, MA

1999-2003

Network Operations consultant (2003)

Skills used: Perl, XML, XSLT

- Designed a system and began the conversion of all Akamai NOCC system alerts to XML definitions, in order to facilitate automated alert response procedures
- Finished several Perl programming tasks to streamline the operation of the Network Operations tools and procedures

Systems Engineer (2000-2002)

Skills used: Perl, Python, XML, shell scripting, proprietary data formats, proprietary transport technologies, HTTP, DNS/BIND, SMTP, Linux administration, Cygwin administration

- Conceptualized, designed, and implemented several high-profile projects to automate the smooth, scalable running of very large distributed service networks of up to 6000 servers each.
- Led small team development effort on a short-notice project with a tight deadline for the OS upgrade of all our networks.
- Wrote and maintained tools and programs that improved the efficiency of the Engineering and Operations Departments.

Projects included:

- Custom software installation harness for Linux and Cygwin servers
- Tools and process for standardized management of DNS servers and zone files
- Process, software, and system architecture changes necessary for a relocation on short notice of the management of a major service network
- Design and implementation of a new service network

Customer Care Advocate / Engineer (1999-2000)

Skills used: HTTP, DNS/BIND, TCP/IP, Linux problem diagnosis

- One of the founding members of an award-winning customer service organization.
- Investigated and diagnosed complex problems with network protocols, routing, and HTTP-based content delivery.
- Provided feedback to Engineering about customer issues and the software bugs causing them.
- Wrote tools and programs which allowed my organization to quickly and effectively resolve problems for a customer base of 200 companies.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA

1997-1999

Student employee, Center for Educational Computing Initiatives (1999)

Skills used: Java, HTML

- Implemented an online virtual exhibit, and researched different types of search engines for use on the web site.

Student employee, Gesture and Narrative Language Group (1997)

Skills used: C, C++, interface design

- Worked with two others to implement a system for children's storytelling. My responsibilities included the design and implementation of subsystems, hardware construction, and programming PIC chips.