

Nathaniel Ekoniak

<http://www.nateko.com/>
nathaniel@nateko.com
(206) 659-1394

AREAS OF EXPERTISE

- ▶ Programming languages including Perl, C/C++ and PHP
- ▶ Major operating systems (Mac OS X, GNU/Linux and other UNIX-like environments, Windows)
- ▶ Object-oriented design and other major language paradigms
- ▶ Pair programming, as well as working independently and as a member of a team
- ▶ SQL and relational database design using MySQL, SQLite and PostgreSQL
- ▶ Dynamic/database-driven web development using Perl, PHP, XHTML, CSS and SQL databases
- ▶ Version control with Subversion and CVS
- ▶ Software and communication security practices and public-key cryptography concepts
- ▶ Familiarity with various Internet standards and networking protocols including TCP/IP
- ▶ Common software including development tools and office/productivity suites
- ▶ Learning new software, programming languages and environments
- ▶ Excellent communication skills, both written and verbal, for technical and non-technical audiences
- ▶ Designing and documenting software projects and APIs with clarity and precision
- ▶ Solving challenging problems in an elegant and efficient manner

WORK EXPERIENCE

Software Developer, SymonTek.
Seattle, Washington.

January 2008–November 2011

- ▶ Developed in-flight networking solutions for use over satellite and other links with high latency, limited bandwidth and/or intermittent connectivity
- ▶ Collaborated on the rapid development of various applications in object-oriented Perl and using off-the-shelf and open-source components where available, in an OS X development environment for deployment on Debian GNU/Linux systems
- ▶ Designed LIPPS, a credit card processing system that uses public-key cryptography to maintain data security according to industry standards including PA-DSS/PCI-DSS and can process both live and asynchronous transactions on aircraft in-flight entertainment systems with limited connectivity; defined and documented its APIs including the definition of XML schemas for exchanging data
- ▶ Designed numerous MySQL and SQLite database schemas for all company products, emphasizing referential integrity and correct mapping of real-world data and relationships, as well as recognizing and dealing with concurrency issues to ensure data consistency at all times
- ▶ Co-wrote and maintained system description and API documents for various company products
- ▶ Co-designed and implemented, as part of a small team of developers, EMBATL, a networking layer written in Perl utilizing Internet standards to allow aircraft systems to communicate with terrestrial servers while in flight in a consistent manner regardless of underlying link layer technology
- ▶ Co-designed and implemented, as part of a small team of developers, GETA, a plugin-based aircraft data delivery and processing system written in Perl; worked with clients to discover, document and ensure compliance with standards for data delivery to and from third parties

WORK EXPERIENCE (CONTINUED)

Assistant Language Teacher, Shibushi City Board of Education.

Kagoshima, Japan.

August 2006–August 2007

- ▶ Assisted in the teaching of English at three public junior high schools and six elementary schools
- ▶ Taught Adult and Youth English conversation classes for Shibushi City's Lifelong Learning Program
- ▶ Helped to organize and participate in city events for the promotion of cultural exchange

Web Developer, *The Post*.

Athens, Ohio.

April 2005–July 2006

- ▶ Co-designed and implemented, as part of a small team of developers, Fourdrinier, an in-house CMS written in PHP, offering a dramatic increase in the functionality, stability, compatibility and usability of *The Post Online*, a public website serving thousands of users
- ▶ Designed Fourdrinier's back-end PostgreSQL database, emphasizing data integrity and performance
- ▶ Normalized and converted years of historical data to an internally consistent format, greatly increasing the efficiency of data insertion and retrieval as well as expanding the utility of existing data
- ▶ Contributed to the layout and graphical design of *The Post Online* using XHTML and CSS, as well as the creation of custom graphics

Assistant Server Administrator, Ohio University Physics Department.

Athens, Ohio.

September 2005–March 2006

- ▶ Assisted with the maintenance of the Linux servers for the Lon-CAPA online course delivery system
- ▶ Created an automated backup solution for the servers supporting Lon-CAPA, using Perl and rsync, increasing the frequency and longevity of backups while decreasing storage requirements

Technical Coordinator, America Coming Together.

Liberty, Ohio.

June 2004–September 2004

- ▶ Coordinated data processing and managed technical operations at the Youngstown, Ohio branch office
- ▶ Automated high-volume, labor-intensive data entry processes, resulting in an order-of-magnitude productivity increase and significant cost savings

EDUCATIONAL BACKGROUND

Bachelor of Science in Computer Science, *cum laude*.

June 2006

Ohio University Honors Tutorial College. Athens, Ohio.

September 2002–June 2006

- ▶ Major: Computer Science
- ▶ Minors: Mathematics and Japanese
- ▶ Cumulative GPA: 3.5 out of 4.0
- ▶ Dean's List: 6 times
- ▶ Undergraduate thesis on the application of relational databases to the analysis of linguistic corpora
- ▶ Coursework completed in C/C++

Chubu University. Kasugai, Japan.

September 2004–February 2005

- ▶ Advanced courses in Japanese language and culture
- ▶ Iwate Homestay and Cultural Immersion Program