

Daniel Enman, B.Sc

CONTACT INFORMATION

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ABOUT ME

I am a graduate of St. Francis Xavier University in Mathematics and Computer Science. I have worked on a number of different projects, both big and small, ranging from web and software development and systems administration to research and analysis. I've also made contributions to open source projects, and continue to find ways to contribute to the open source community.

THESES

(2010) B. Sc Thesis: "An Introduction to Projective Geometry: Conics". Supervised by T. Bruen, Mathematics Statistics and Computer Science, St. Francis Xavier University

EDUCATION

Saint Francis Xavier University, Antigonish, Nova Scotia

B. Sc Advanced Major in Mathematics

- Participated in the ACM programming contest at APICS 2009
- Participated in the William Lowell Putnam Mathematics competition

Partial list of Mathematical/Computer Science Courses taken:

- Calculus I/II/III and Vector Calculus
- Real Analysis I/II
- Complex Variables
- Partial Differential Equations
- Discrete Mathematics and Combinatorics
- Modern (Abstract) Algebra
- Mathematical Modelling
- Probability and Mathematical Statistics
- Data Structures
- Algorithm Analysis
- Object Oriented Programming Paradigm
- Operations Research
- Computational Physics

High School Diploma (High Honours), Prince Andrew High School, June 2006

- Received award for recognition in Computer Science

PROFESSIONAL EXPERIENCE

znanja Inc.

Co-CTO & Co-Founder

January 2012 – present

My role at znanja is partially a continuation of my work at Velsoft. znanja is an eLearning platform, content conversion, and content delivery platform that allows instructors and facilitators to create, convert and deliver their content to their students in an easy, customizable and real-time way. My responsibilities at Velsoft as Co-CTO is to work with the rest of the executive team and engineers to define and develop a top-notch eLearning platform. This platform is built using a multitude of technologies including: Linux, SmartOS (Solaris 10), Python, Node.JS, PHP, C++ and JavaScript.

Velsoft Training Materials Inc.

Head of Technology & Sr Software Developer

April 2010 – present

My role at Velsoft is a varied one, and one that is always changing and expanding. My chief responsibility here is as a software and infrastructure engineer. In this role, I work with our development and our systems team to develop amazing eLearning applications on our custom build eLearning platform, while enhancing and expanding the platform itself. This affords me a great deal of experience with the entire stack, ranging from our Linux and Solaris servers, to the Python, C++, NodeJS and PHP code-base. Given that we deal with large amounts of content and data, we are always finding and developing ways of viewing, and analysing that data to provide a comprehensive overview of our platform's health, customer's content, student responses and scoring, overall customer strategies and an suite of advanced data management tools.

Additional to my role as an engineer, I also manage the team of software and systems engineers and the over infrastructure that they rely on, on a day-to-day basis, including both our internal infrastructure, and our external infrastructure. Our existing internal infrastructure exists in-house, and consists of all types of servers ranging from our directory server (Active Directory on Windows Server 2008 R2) to our project management suite (the Atlassian suite including JIRA, Confluence and Bamboo) and our development infrastructure. Our external interface exists on a combination of Amazon AWS (EC2, S3, Route53) and Joyent's SmartDataCenter hosted privately. My team also manages internal services such as VPN, GPO and workstation management, and customer facing services behind OAuth 2.0, such as our Courses API and our eLearning API.

Velsoft has provided me the opportunity to build and develop scalable, high-use applications built on a number of technologies, including NodeJS, and Amazon's AWS cloud. At Velsoft I have been given the opportunity to grow both as a developer, and as a manager. I have managed and developed with large teams, and small teams. I have also lead in the release of patches back to the open source community, and the open sourcing of many of the libraries we use internally.

Freelance and Open-Source Developer

Web Developer and Consultant

2004 – present

I have been working as a freelance and open-source developer for a number of years, and have worked on many open-source projects, including as co-lead developer on the Cerenkov framework (now defunct). I have developed numerous websites using this framework including the Leapnode IRC Network website (<http://leapnode.net>). I also have experience with other frameworks, including the Zend Framework, and KohanaPHP.

I have done PHP Development work for some local and non-local companies including;

- Highland Multimedia (<http://highlandmultimedia.com>)
- Impact Communications (<http://impactcommunications.ca>)

If you are interested in viewing some work samples or to view my personal source code repository, please contact me at the above information, or visit my GitHub account at <http://github.com/enmand>.

Some of my recent work includes:

- Nova Scotia Liberal Caucus (<http://nsliberalcaucus.ca>)
- FORCE (<http://fundyforce.ca>)

I have also submitted patches for different open source projects:

- Kohana PHP Framework
- SVN PECL
- gearman-node (<https://github.com/cramerdev/gearman-node/tree/feature/worker>)
- gearnode (<https://github.com/velsoft/gearnode>)

Saint Francis Xavier University (TSG), Antigonish, Nova Scotia

Student System Administrator (Intern)

January 2010 – April 2010 (1 semester)

My role at the Technology Support Group for my last semester at St. Francis Xavier University was on the Projects Team of the Infrastructure Technology department. I had been tasked with multiple projects, from researching virtualization technologies such as VMWare to researching and testing Windows 7 and Windows 2008 Server rollout options on a large scale to all of the client computer labs (using KMS and MAK for activation). As a *student system administrator*, I interacted daily the Manager of Technology Infrastructure and provided suggestions on a number of projects.

Gatmaster, Inc., Halifax, Nova Scotia

Software Developer (Intern)

July 2009 – Aug 2009 (summer term)

With Gatmaster, Inc. I was responsible for helping build a new "Internet Rental Listings" website, where landlords and tenants could connect with each other in new ways. One of the tasks I was charged with was creating the Tenant "Application Centre" where applicant tenants could create and store information on their application. Along with the "Application Centre", I was also partially responsible (together with the Sr. Software Developer) for helping put the system together in its entirety. The development work was mainly in PHP, though there was a significant amount of JavaScript (using the jQuery library). The database used to store and process the large amount of information was Firebird.

Saint Francis Xavier University (TSG), Antigonish, Nova Scotia

Contact Centre Representative

November 2007 - January 2010

At the TSG, I was responsible for answering calls, emails and faxes to assist with the TSGs regular duties around the University, as they are responsible for nearly all the technology on campus. My duties involved helping to troubleshoot users with any problems, updating assigned student's accounts passwords, as well as documentation on subjects concerning the technologies that the TSG has implemented.

COMPUTER
SKILLS

Programming Languages

- PHP
 - KohanaPHP
 - MVC (Model-View-Controller) pattern
 - ORM (Object-relational mapping)
 - Object-Oriented methodologies
 - PHP4 and PHP5 experience (including PHP5.3)
- Python
 - Python 2 (2.6, 2.7)
 - Python 3 (3.0, 3.1, 3.2)
- JavaScript
- Node.JS (and V8 core)
- HTML (including CSS3 and HTML5)
- C and C++
- Database
 - MySQL
 - MongoDB
 - Firebird
 - ORACLE 9i
 - PostgreSQL
- Java

Operating Systems

- Linux (including Debian, Ubuntu, SUSE, ArchLinux, RHEL)
- Solaris (Illumos SmartOS, OpenIndiana)
- FreeBSD (6-RELEASE and pfSense)
- Mac OS X, including OS X Server
- Microsoft Windows (7, 2008 Server R2)

Miscellaneous

- Juniper ScreenOS 6.3
- IPSec, OpenVPN
- Gearman and multi-server processing
- Memcached
- KMS and MAK Activation for Windows
- Working knowledge of OAuth and OAuth2.0 (up to draft11)
- Working knowledge of SCORM 1.2 and SCORM 2004