

# Charlton Wilbur

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## EXPERIENCE

### Software Engineer IV, Cengage Learning, South Boston, MA

June 2013 to October 2014

As part of the MindTap Platform Core team, supported and maintained the basic functions underpinning the core of MindTap, the e-learning platform at the center of Cengage's digital strategy. As part of this team, I contributed to ongoing enhancements to the Media Inspector, a software tool to analyze and repair referential inconsistencies in course data; to the Course and Section Management project, aimed to enrich MindTap courses to be used with a broader variety of instructional structures, including several sections being taught in parallel, a lead instructor with several assistants, or an instructor with a student teaching assistant. While doing this, I also mentored more junior colleagues in Scrum and Agile, in test-driven development, and in good software engineering practices.

Principal technologies used included Javascript, including Node, Grunt, Jasmine, jQuery, JavascriptMVC (later renamed to CanJS), and AngularJS; MySQL and Mongo as databases; HTML5 and CSS; Jenkins for continuous integration and Git for source control. Software engineering methodologies used include Scrum (modified significantly with some features of Kanban, in Cengage practice), test-driven development, and maintaining unit tests and behavior tests in parallel with code.

### Senior Software Engineer, Rakuten Loyalty, Boston, MA

November 2012 to May 2013

As part of a team of engineers, built a backwards-compatible but forward-looking web services layer under a mature web search and shopping toolbar plugin, and enhanced the web services to support multiple toolbars and to improve fault tolerance.

Principal technologies used include Javascript and Node.js for web services, agile development methodologies based on Scrum, database development using MongoDB, and cross-platform data transfer using XML and CSV files.

### Software Engineer, MMS, Boston, MA

August 2012 to September 2012

Authored database reports showing the effectiveness of SMS text message broadcast campaigns for clients such as Coke and Bell Mobility Canada. Automated SMS broadcasts, including biweekly broadcasts of 250,000 to 350,000 messages.

Principal technologies used included Unix system tools, Perl, and DB2, including query optimization and stored procedures.

### Software Engineer, Cambridge Interactive Development Corp., Cambridge, MA

May 2011 to July 2012

Supported and enhanced the Everest Affiliates marketing program software, the principal advertising platform for the Everest family of online gaming sites, with principal responsibility for the software running a group of widely distributed ad servers.

Worked on a major project to integrate the Everest Affiliates ad serving and affiliate tracking software with our sister companies Betclie and Expekt.

Principal technologies included object-oriented Perl using the HTML::Mason and Rose frameworks, legacy support for older software written using Perl CGI, agile development methodologies including Scrum and Kanban, database development using Informix and MySQL, service-oriented architectures using an extended version of XML-RPC developed in-house, and cross-platform data transfer using XML.

### Senior Software Engineer, athenahealth, Watertown, MA

January 2011 to May 2011

As part of a team of programmers, both in Watertown and at two locations in India, resolved bugs in the athenaCollector suite of medical practice management software.

Principal technologies included procedural Perl, Oracle 10i, and extensive custom in-house software tools.

### Software Engineer, Cambridge Interactive Development Corp., Cambridge, MA

August 2007 to November 2010

Worked on several major projects, including the Everest Affiliates Phase 2 release (late 2007), the Everest Poker VIP customer loyalty program (released late 2008), a substantial overhaul of affiliate commission calculations (released in May 2009), and a major effort to comply with the new French online gaming regulations (ongoing for several months, with a major release in late June 2010).

### Application Support Specialist, WorkshopLive, Pittsfield, MA

February 2006 to June 2007

Developed and extended an application platform for delivering interactive video music lessons to subscribers.

Projects included overhauling the marketing email database and mailing system, developing business processes and software support for initiatives such as a prepaid lesson cards, gift certificates, and fully automated eBay auctions; developing a web store and back-end communications software to support a direct response television advertising campaign; a custom web application for customer contact and relationship management. Also led the implementation of more robust and reliable application development methodologies, including the use of bug tracking software, source code version control, and wiki-based documentation.

Principal technologies included MySQL, ColdFusion, both legacy support and new object-oriented development, sysadmin-level Perl scripting to support email marketing initiatives, Catalyst with Template::Toolkit for internal software development projects, and software development tools such as Subversion for source code version control, TWiki for internal documentation, and Mantis for bug tracking.

**Web Programmer, Tortus Technologies, West Springfield, MA**

**October 2005 to January 2006**

Developed and maintained web software in Perl in support of Tortus Technologies clients.

Principal technologies included Perl, MySQL, HTML::Mason, and ePerl

**Owner & Technical Lead, Chromatico Consulting, Boston, MA**

**November 2003 to present**

Consulted and developed software for a variety of clients.

Enhanced and supported an application to manage detailed architectural and construction specifications for the specification management branch of Davis Langdon Schumann Smith.

Developed software for Miningworks to support an appliance that would measure and record the bandwidth associated with various IP addresses, including a daemon to measure ping times to multiple hosts simultaneously and a web interface to edit text-based configuration files.

Developed software on spec for the Apple Macintosh platform to support traditional face-to-face fantasy roleplaying games.

Principal technologies included object-oriented PHP, PDFlib, C and POSIX, Perl with the CGI interface, and Objective-C and Cocoa.

**Webmaster, ISO New England, Holyoke, MA**

**September 2001 to October 2003**

Served as technical webmaster for a company which conducted most of its financial transactions over the Internet.

Administered production, integration, and development web and databaseservers, supported a workgroup of software developers writing Java software, designed and implemented processes for publishing human-authored documents and computer-generated data to the web, and tested performance for Apache web servers and Tomcat application servers.

Principal technologies included Red Hat Linux, MySQL, PHP, Perl, Apache, Oracle, and Tomcat. Some data were published in CSV and XML formats.

**Multimedia Applications Programmer, University of Massachusetts, Amherst, MA**

**March 1999 to August. 2000**

Developed interactive multimedia applications for faculty and staff clients of the Academic Computing team and for Office of Instructional Technology initiatives. Assisted as a technical consultant in the redesign of the main University home page. Taught workshops for faculty and staff in Photoshop, basic Perl, and basic web design.

Principal technologies included client-side Java, Javascript, dynamic HTML, Perl, and Oracle.

**EDUCATION**

**Graduate work, University of Massachusetts, Amherst, MA**

**September 1998 to May 2001**

Coursework completed for Masters of Music in Music Theory. Thesis topic: tonal coherence in the *Prophetiae sybillarum*, a set of secular motets in a highly chromatic style written by Orlando di Lasso around 1555.

**Bachelor of Arts, Bowdoin College, Brunswick, ME**

**1991-1995**

Double major in music and computer science. Departmental honors in music.

**SKILLS**

**Programming and Markup Languages**

Expert in Perl and HTML. Significant experience in C, XML, PHP, ColdFusion, JavaScript, and SQL, and in data exchange using text-based file formats such as CSV and XML. Familiar with Node, JavascriptMVC, jQuery, and to a lesser extent AngularJS.

**Software Engineering**

Significant experience in multi-tier database-backed architectures and with Model-View-Controller architectures. Experienced in agile software engineering methodologies such as, Getting Real, Scrum, and Kanban. Experience with bug and task tracking databases (Mantis, Bugzilla, Jira) and version control software (Subversion, CVS, Perforce). Have been successful in strongly TDD-oriented development environments.

**Project Management**

Significant experience with Agile software development methodologies, especially Scrum but also Kanban, as a team member. Experience estimating and sizing and facilitating Scrum meetings as an occasional substitute Scrum Master.

**Soft Skills**

Excellent communications skills from my experience in teaching and writing as a graduate student.