

Gregory Wilson

Lead Web Application and Visualization Engineer

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Summary

Lead Application Developer with over 18 years extensive experience with PHP and MySQL, and 9 years leading cross-functional teams. Strong ability to translate ideas and visions into production systems.

Specialties: PHP, MySQL, AngularJS, ajax, database design, malware reverse engineering, MeteorJS, MVC architecture, git, svn, Laravel, Zend Framework, distributed computational analysis.

Experience

Senior Security Systems Engineer

Redport Information Assurance

April 2013 - Present (3 years 1 month)

LAMP Developer Subject Matter Expert for the Department of Energy OCIO ITSS. As part of a highly specialized hybrid cross-trained cyber security team whose only focus is in mitigating cyber threats, responsibilities include developing/maintaining cutting edge applications to assist reverse malware engineers, network intrusion engineers, incident response analysts, etc. Also responsible for the development and maintenance of custom federated government task applications, including coding, unit testing, and debugging. Ensure all code exceeds federally mandated secure coding guidelines (FISMA, etc). Consult with system owners to clarify functional requirements and program objectives. Train end-users in system usage. Document detail design and technical requirements to meet business needs. Built demonstration Apache Spark system for realtime threat monitoring.

Position Highlights:

- Constructed realtime indicator visualization, generated from computational cluster
- Analysis and refactoring of legacy systems to increase speed over 30x.
- Requirements gathering, data exploration, system design and deployment of enterprise infosec dashboard.
- Received award for construction of "Media Monitoring" global incident awareness system.
- Received award for rapid analysis of encrypted intrusion and exfil data.

Principal Systems Architect

Social & Scientific Systems

November 2008 - April 2013 (4 years 6 months)

Team lead for international clinical trials management systems. Design, develop and integrate complex global-scale information systems supporting international public health research networks (preclinical and clinical), as well as commercial Contract Research Organization (CRO) needs. Serve as a technical leader within the Biomedical Informatics group, particularly in the areas of enterprise-class clinical informatics and clinical trials research systems. Designs, modifies, develops, writes and implements complex software, and potentially life-critical programming applications. Assists in developing automated integration and unit tests to ensure FISMA compliance. Achieve area goals for delivering a service-oriented infrastructure to support Biomedical, Clinical, Health Information Management, Clinical Translational, Basic Science, and Population Sciences.

Sr. Web Developer

The George Washington University Biostatistics Center

September 2006 - November 2008 (2 years 3 months)

Sr. PHP Developer and Team Lead, TrialNet: Type 1 Diabetes Lead team of PHP developers migrating web system from mainframe to PHP using the Zend Framework Web and database architecture design Training of other developers in standard database design and usage Composed specification documents for future system needs.

Graduate Student Researcher

Cornell University

August 2002 - 2007 (5 years)

Constructed distributed system for comparative genomic analysis of over 40,000 distinct genetic loci in the rice genome, including primer design, and web based interface for searching polymorphic sites suitable for breeding improvement. Wet lab verification of computational results yielded > 95% success rate.

Sr. Web Developer

Campus Crusade for Christ

October 2000 - February 2002 (1 year 5 months)

Web application development and database modeling

Web Programmer, CONTOUR Project

Cornell Center for Radiophysics and Space Research

Summer 2002

Designed web interface to data collection instruments on the Comet Nucleus Tour space probe. Code wound up being reused for Deep Impact mission.

Network Administrator

Cornell University

1998 - 2000 (2 years)

Built and maintained mixed Win95/NT and Apple environment integrated via a Samba server. Built a departmental website for classes, faculty, and computer asset management.

Publications

Basic Intrusion Detection with Expose IDS

php[Architect] September 2015

The map-based sequence of the rice genome.

Nature August 2005, IRGSP

Area: Annotation and Analysis of Over 18,000 SSRs <http://ricelab.plbr.cornell.edu/publications/2005/IRGSP/>

A Universal Core Genetic Map for Rice

Theoretical and Applied Genetics October 2009

J. Orjuela, Gregory Wilson, et. al.

Certifications

CSSLP	(ISC) ²	
CompTIA Security+	CompTIA	LZS01ZWLQG4ESGD1
Zend Certified Engineer	Zend	ZEND006274
Zend Certified PHP5 Engineer	Zend	6274

Skills & Expertise

PHP, Javascript	Information Security	Apache	Bioinformatics
Linux, OSX	Intrusion Detection	Bootstrap, jQuery	Parallels
MySQL, Oracle	Malware Analysis	Drupal	Software Development
Mongo, Neo4J	Reverse Engineering	Wordpress	XML
AngularJS, Material Design	MeteorJS	JIRA, Assembla, Bugzilla	Ansible
Git, Subversion	HTML5	Laravel, FlightPHP	Vagrant
Data Visualization / D3.js	AJAX	Database Design	Oauth2, SAML
Real-time Data Analysis	SQL	Perl	

Education

Cornell University M.S.,

Plant Breeding, 2002 - 2006

Focus: Computational and Comparative Genomics

Cornell University BS,

Chemical Engineering, 1993 - 1998

Awards

Eagle Scout

Citizenship

United States

Clearance

TS and DOE-Q