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 hopeseekr@gmail.com
 Online code portfolio: <https://github.com/hopeseekr>
<https://github.com/hopeseekr/HaveIVoted.org>
 C# Portfolio: <https://github.com/BetterRimworlds/>
 Packagist: <https://packagist.org/users/hopeseekr/> (number of downloads as of May 2024: 851,083)

Watch me code (time-lapsed coding video):
 Coding a Web Quiz: <https://youtu.be/JDGqqcaeP8s>

Experienced WebServices Developer specializing in Object Oriented PHP 5. MySQL 5, SOAP, XSL, and Cross-Platform C++. Able to multi-task between multiple projects with an eye on scalability and maintainability of applications and frameworks. A Zend Certified PHP 5 Engineer, ZEND005639 as of June 22nd, 2007. Skilled at developing large-scale, highly-trafficked (>50 million visitors/month) PHP 5 websites, both ecommerce and media. A skilled refactorer and used to improving existing applications in tandem with new development.

I created the first long-lived PHP CLI (> 6 months without terminating) and first PHP daemon (client + server for the IRC RFC) in 2001:
<https://github.com/hopeseekr/phpegg>

Certifications

Zend Certified PHP 5 Engineer - ZEND005639
MySQL 5 Certified Developer - 229350277
MySQL 5 Certified DBA - 229350278
Certified Linux Professional (LPIC-1) - LPI000334283, Verification: yq93ms4w7t

Skill Inventory

Skills	Level	Experience
Programming Language :: PHP	Highly Advanced	20 years
JavaScript	Highly Advanced	21 years
AJAX (and later, JQuery, React, Vue, Angular)	Advanced	13 years
Database Environment :: Database API :: SQL	Highly Advanced	15 years
Programming Language :: C++	Competent	8 years
Programming Language :: C#	Competent	5 years
Programming Language :: Go	Learning	2 years
PostgreSQL database development and admin	Advanced	7 years
MySQL database development and administration	Highly Advanced	15 years
Object-Oriented Programming	Highly Advanced	14 years

System Administration (Linux Cert. Pro Lvl 1 & 2)	Advanced	13 years
Programming Language :: WebServices :: SOAP	Advanced	7 years
NodeJS	Competent	4 years
CMS: Drupal	Advanced	5 years
CMS: Wordpress	Advanced	2 years
Framework: Symfony	Intermediate	5 years
Framework: Laravel 4-8	Advanced	7 years
Languages :: Spanish	Fluent	6 years
Languages :: Arabic	Learning	6 months

Work History

PHP Experts, Inc. – May 2024 to Present

- Created the de facto PHP SDK for OpenAI ChatGPT’s API: **phpexperts/chatgpt-speaker**
- Trained a LLM Foundation Model on POSIX, creating Linux from scratch, Ubuntu and shared library linking.
- Used the LLM to create a generic Complex Distroless Docker Image Generator: Tell the AI the path of your complex binary and in less than 30 seconds, it will create Dockerfiles and bash scripts to create your own from-scratch Linux system with just that binary and its dependencies. Developed modules for PHP 5.2-8.4, Python 3, Mono C#, Postgres, MySQL, and the Go compiler.
- Did more work on **phpexperts/dockerize**
- Expanded **phpexperts/simple-dto**
- Did C2C work for clients in the UAE.
- C#: Created the Stargate and GlitterTech DLCs (\$5 packs) containing the following Mods I’ve built over the years (See Appendix)

IBM -- February 2021 to September 2024

2024:

- Assisted every team in IBM Cloud Legacy (SoftLayer) as “technical consultant” for PHP 8.1 migration.
- Got a promotion to official SQL Developer across SoftLayer, an as-needed liason between DBAs and Developers who rewrote badly performing ORM calls to advanced, performant SQL (particularly in support of Accounting reports).
- Reprioritized from SoftLayer to WatsonX in IBM Cloud’s big push to AI.
- Team Lead of 3 for the PHP SDK for WatsonX API.

2023:

- Specializing in upgrading jQuery across all teams (Dev-Virt, Dev-IO, SWIMG, and BareMetal) from jQuery v1.8 to jQuery v3.6.1 across all of IBM Cloud Legacy (aka SoftLayer).

- Team Lead: Migrated ultra-legacy accounting system from PHP 4.4 running on CentOS 5 to PHP 8.1.
- Created the only known working PHP 4.4 Docker Image based on CentOS 6 in the entire world. Very difficult, because none of the toolchain was downloadable in 2023.
- Backported latest dependencies of PHP 4.4 Core extensions to support legacy extensions from PHP 4.4 in the 2006-2007 time frame, using my C and C++ advanced skills.
- Got PHP 4.4 to run in modern RHEL 8.8 via Docker.
- Created the k8s deployment for ancient PHP 4.4 that was deployed across IBM Cloud. Now used by many clients as part of the Legacy cloud offerings.
- Began migration of IBM Cloud Legacy (SoftLayer) from PHP 7.4 to PHP 8.1.
- Officially recognized as the only person to work on every team of IBM Cloud Legacy (SoftLayer) in 2023 because of my wide range of skill mastery (front end, backend, C/C++/C#, Java, Go, SQL, Docker, K8s, and more).

2022:

- Docker + Kubernetes: Refactored how Dev-Virt microservices are deployed to improve performance and reduce corporate expenses.
- Docker + Kubernetes + TravisCI: Built a Docker microservice autobuilder + upgrader that automatically deployed every Dev-Virt microservice on a weekly basis so that all new PSIRT vulnerabilities would be automatically patched, saving IBM tens of thousands of dollars and many man hours + greatly decreasing the attack vectors.
- Go Lang: Helped rewrite the Dev-Virt xenwebsockify frontend UI connector bridge between XenServer and the IBM IMS system from Python to Go Lang.
- Go Lang: Helped rewrite the Dev-Virt Slackbot for notifying the team when Critical Escalations came in.
- Critical Tech Dev Support: On-call on 12 hour shifts for doing dev-heavy technical support for the IMS Dev Virt system.
- Promoted to InfoSec compliance programmer in May 2022, across the entire IBM Cloud Virtual Classic department.
- Specializing in upgrading and maintaining custom Drupal installs (upgrading legacy platform from v5 to v9)

2021:

- On the Dev Virtualization team (8 million line PHP management suite that manages IBM Cloud Platform automation (provisioning VMs, etc.)
- Lead of the migration from PHP 7.3 to 7.4 (Feb-March 2021).
- Lead of migration from PHP 7.4 to 8.1 (June-Nov 2022).
- Lots of custom code related to provisioning of VM assets (VHDs, KVMs)
- Wrote a password sync that synchronize's the host user password with VM guest OS' and any attached KVM switches.
- Docker + Kubernetes: Completely eliminated 33,000+ PSIRT vulnerabilities in Dev-Virt microservices by completely rebuilding all of Dev-Virt's 8+ dockerized services.

LightningStep, LLC (1 month contract, renewed) – January-March, August-September 2020

- Jan: Integrated LaravelBAP's calendar into their existing Laravel application.
- Jan: Upgraded their Laravel 5.4 app to Laravel 5.8 using PHP 7.4.
- **Feb: Created a ReactJS frontend for the calendar.**
- **Mar: Dockerized devops chain (dev boxes + QA)**
- **Aug: Dockerized entire server chain (kubernetes via Amazon EKS)**
- **Sep-Current: Created MERN stack microservices (MySQL, Nginx, React + NodeJS [express]) to refactor legacy PHP site coded in vanilla PHP.**
- Created LAMP stack microservices based on Laravel 6 LTS to refactor legacy PHP site.

US LawShield, LLP,

Houston, TX. – February 2019 – November 2019

Job Title: Tech Lead / Systems Analyst Level 2:

- Team lead of 8 initial developers, 4 current.
- Started the refactoring of an extremely legacy project (PHP 5.2, no composer).
- Migrated uslawshield app to PHP 7.4.
- Created new APIs and a new Admin portal in Laravel and Lumen 5.8.
- Delegated tasks and set deadlines for my internal team
- Set up and deployed a unified environment Docker using Docker Compose for development, testing and production environments.
- Set up and maintained a GitLab EE system.
- Created and maintained a Vue.JS frontend consuming a Laravel 5.8 and Laravel 6.0 RESTful API backend.
- Created numerous marketing landing pages primarily with ReactJS.
- Integrated LaravelBAP's calendar into their existing Laravel application.
- Upgraded their Laravel 5.4 app to Laravel 5.8 using PHP 7.4.
- Created a ReactJS frontend for the calendar.

Medolgy.com / HealthLabs.com / Starfish.com,

Houston, TX. – May 2016 – June 2016, January - December 2018

Hyderabad, India – July 2016 - December 2017

Job Title: Team Lead (concurrent):

- Created an inspiring team environment with an open communication culture
- Set clear team and individual developers' goals
- Delegated tasks and set deadlines for my internal team
- Successfully trained and deployed a Team Lead replacement in 6 months.
- Monitored team performance and report on metrics
- Coached each team member individually and raised them all from beginners ("freshers") to advanced senior developers.

Job Title: Senior Software Architect / Lead Developer (concurrent):

1. Design, develop and execute software solutions to address business issues
2. Provide architectural blueprints and technical leadership to our IT team

3. Evaluate and recommend tools, technologies and processes to ensure the highest quality product platform
4. Collaborate with peer organizations, quality assurance and end users to produce cutting-edge software solutions
5. Interpret business requirements to articulate the business needs to be addressed
6. Troubleshooted code level problems quickly and efficiently (primarily by code review and ScrutinizerCI)
7. Conducted final code review audit of all code reviews.
8. Successfully trained and promoted a replacement for this role for every production-released startup (specifically, HealthLabs.com and Starfish.com)
9. Projects used API-Centric Laravel 5.4-5.5, Lumen 5.5, AngularJS2 on the PHP 7.2 Nginx stack.
10. Created HealthLabs.com's admin interface using ReactJS.
11. Set up and deployed a unified environment Docker using Docker Compose for development, testing and production environments.
12. Was the de facto System Operator (SysOps).
13. Successfully trained a junior developer all of my sysop duties and greatly expanded their Linux skillset over the course of 18 months.

PHP Experts Inc., Houston, TX. – July 2012 – May 2016

Job Title: Team Lead + Senior Software Architect

Team lead of 2 senior + 3 junior (in house + outsourced) developers.

Primary products: PHPU.cc (PHP University), security auditing and team training.

Lead developer for business solutions (WHMCS, custom Retail Platform and custom cPanel extensions),

Chief responsibilities include refactoring complex SQL queries, and properties' load times in general, refactoring legacy code bases, and developing new Web 2.0 platforms.

Maintained custom Drupal blogs.

SCRUM master-in-training

Test Driven Development: Base development around automated tests (unit and integrative (Selenium + PhantomJS, using the Codeception framework).

Coding demo: <http://www.youtube.com/watch?v=xJPf7XGDLqo>

PHP Experts Notable Contracts:

MacMillan (via TechMahindra) - Bogota, Colombia (100% remote) - Sep 2015 - October 2015 [C2C contract]

Symfony2 + Doctrine2 as a RESTful API server,

AngularJS front end work

Made a custom Doctrine2 Abstract Syntax Tree walker extension for archiving data.

Made a complete advanced search for highly-normalized data (~1 TB) in Solr and PHP

Migrated parts of the application to document DBs (MongoDB and Solr) for performance.

Bahamas Customs Shipping - Nassau, Bahamas [onsite] - June 2015 - August 2015

Training local coders in Scrum, Doctrine2 and Symfony2.

Setting up coding environment

Around the clock mentoring
Developed Drupal 8 site.

TIAA-CREF (via Cognizant) - Bogotá, Colombia (50% remote, 50% in Bogota) -
Mar 2015 - June 2015 [C2C contract]

Creating an auto generator of investment and retirement services, 3rd-party deployed
applications for major (Fortune 500) institutions.
Team lead of 7 American developers [2 in NC, 2 in CA, 1 in Texas, 1 in
NYC, 1 in Colombia], 6 in India
Scrum master
Coordinator between international programming team and Americans.
Kohana Framework + In-house framework
AngularJS + Bootstrap
Migrate and maintain legacy code.
Mentor programmers weekly.

MacMillan (via TechMahindra) - New York, NY (100% remote) - Nov 2014 - Feb
2015 [C2C contract]

Created an ecommerce portal for buying and renting textbooks, at a university level.
Team lead of 8 developers, all remote, 5 in India, 3 in America [NYC [me]
and St. Louis.
Symfony2 + Doctrine2 as a RESTful API server,
Consumed by AngularJS with fluent CSS
Caching via RedisCache
Created a fully functional Role-Based Access Control (RBAC) authorization
system.
Heavily refactored lots of poor performance Doctrine code via DQL and
direct SQL.
Created a lot of unit, functional, and API tests using Codeception and
PHPUnit.
Scrum master
Mentor programmers weekly.

Stealth.travel - New York, NY - April 2014 - October 2014 [6 month contract]

Created an ecommerce platform for buying flight, hotel, and car vacation packages
(like priceline) but with a focus on complex groups and multi-destination
itineraries.
Symfony2 + Doctrine2; RESTful API server + Twig and
Underscore/Backbone for front end.
NodeJS for CPU-intensive tasks [mostly my work],
Tasks coordination via RabbitMQ
Created RESTful Web 3.0 services in PHP 5.5, using a custom-built
Symfony2 REST API system.
Created comprehensive Redis caching system for highly-fluctuating airline
availability data. Integrated it seamlessly with every existing API.
Created fluent-designed front-ends jQuery, Backbone, Underscore and
Handlebars
Created responsive CSS3 for multiple interfaces (phones, tablets, and
Desktops).

2nd.md - Houston, TX - February 2014 [3 week contract]

Migrated complex videoconferencing web app BackboneJS/Underscore to
AngularJS.
Symfony2 Framework for REST API

WHMCS.com - Houston, TX - July 2013 - Jan 2014 [6 month contract]
Conducted a comprehensive security audit.
Extensive secure coding and best practices training for development team
Found and fixed a great many security flaws. Average number of in-the-wild exploits decreased from ~4/month to zero in 12 months and counting (last exploit: October 2013).
Refactored entire legacy codebase to work in UTF-8 natively.
Redesigned/refactored their modules system, from the ground up,
Optimized and refactored their release system management,
Implemented comprehensive i8ln internationalization support, system-wide
Implemented one of the most comprehensive and complete International Domain Names (IDN) v2.0 support for any registrar.

RailChannel.com - The Woodlands, TX, - March 2013 - June 2013 [3 month contract]
Team Lead: Five person team (2 devs, 2 designers, 1 BA+QA) project; Lead Dev.
Comprehensive YouTube-esque continuing education site, built from scratch.
Created highly customized video searching system utilizing Zend_Lucene and a 3rd party video metrics analyzer.
Framework: Joomla (client's requirement).
Handled all development and design (except graphics)
Stack: Windows Server 2008 R2, PHP 5.4, Apache 2.4 and MS SQL Server 2008

USBank.com - Minneapolis, MN - Nov 2012 - Jan 2013 [3 month contract]
Three person team (2 devs, 1 BA+QA).
Conducted a comprehensive security audit [PCI, XSS, CSRF, et. al],
Fitness hardening of the entire LAMP stack with emphasis on code security,
Secure coding training for development team
Built new admin interface utilizing PHP, BackboneJS, and jQuery.
Stack: Windows Server 2008 R2, PHP 5.4, IIS and MS SQL Server 2008
Zend Framework 2

Hearst Corp., Houston, TX [Long-term support contract via Delphi-US]. – February 2011 – July 2012

Job Title: Team Lead / Senior Software Engineer
Team lead of the Hearst Wordpress and Drupal Network (2500+ blogs; 2nd largest wordpress deployment in the world).
Manages team of 6 (3 remote; 3 local) developers, both junior and senior.
Maintain high-trafficked WP network (>80 million visits/month).
Maintain and extend high-trafficked Drupal 7 enterprise network (>25 million visits/month)
Migrated custom Drupal 6 blogs to Drupal 7
Created, extended, and maintained multiple WP plugins, themes, and core WP.
Former team lead of core platform for newspapers (Houston Chronicle, SFGate, etc.)
Maintain, extend, and refactor core platform (70% PHP+SQL, 10% XHTML/CSS, 15% JS, 5% C#), web services, and feeds.
11 months as junior architect of the HDN News Division platform, based on the Symfony2 platform.
Main high-trafficked news network (>150 million visits/month).
Facebook, Twitter API integration.

Facebook app development.
Android app development.

SpeedFC, Dallas, TX. June 2010 – February 2011 [W2]

Job Title: Senior Software Engineer

Team lead of 2 senior + 15 junior (in house + outsourced) developers.

Lead developer for YankeeCandle.com's 2011 relaunch.

Chief responsibilities include refactoring complex SQL queries, and properties' load times in general.

Team lead of multisite Internet Retail ecommerce Platform (core project).

Support for TheLimited.com, Shopko.com, ShopJustice.com, and AnchorBlue.com, among others.

Symfony Framework.

Personal projects include migrating from Symonfy 1.0 to 1.4 then 2.0, moving core platform logic to Zend Framework, refactoring the IRP for large-scale traffic, and creating unit and integration tests for the IRP.

RMG Connect/JWT, Irving, TX. July 2009 – June 2010 [W2]

Job Title: Software Engineer

Developer for the U.S. Marines Corp web properties, including marines.com both public facing and military facing.

Zend Framework

Lead developer on project to create an ultra-secure and distributed unified login system for USMC properties.

Developed several high-trafficked Facebook applications (e.g., USMC Loyalty app)

Responsibilities included:

refactoring and increasing in efficiency military websites to support mission-critical flash traffic from major media campaigns

auditing and fixing XSS and SQL injection vulnerability across a host of marines website properties

mentoring and training team members on proper secure, resilient, scalable, and maintainable OOP PHP using the Doctrine, Symfony, and Zend Frameworks, which are all utilized for different projects.

Migrating JSP properties to PHP 5.

Main backup for most projects (recruiting, facebook apps, public relations, and officer apps).

Blinds.com, Houston, TX. December 2007 – July 2009 [W2]

Job Title: Web Applications Architect

Customized website design and development.

Maintainer of www.blinds.ca and www.nobrainerblinds.com

Followed the structured SDLC RUP process.

Ensured work meets quality standards and assisted other IT staff in QA testing.

Responsible for developing backend C++, frontend C# web app while maintaining and refactoring an existing PHP 4 code base.

Job IT, Houston, TX. August 2007 – December 2007 [1099]

Job Title: Web Application Developer

Integrated Object Oriented user-end web application with backend business .NET application via SOAP and PHP.

Made extensive modifications to the Joomla Content Management System in PHP and MySQL 5.

Optimized and refactored existing project codebase for efficiency and speed.

Customized Drupal interface for their intranet.

Migrated existing web application from PHP 4 and MySQL 4 to PHP 5 and MySQL 5.

713-Tickets.com, Houston, TX. May 2006 - May 2007. [W2]

Job Title: Web Application Developer

Lead IT employee for Houston's second largest ticket broker, team of 3.

Setup and maintained network services such as proxy servers, email exchanges, and DNS servers using 100% open source, typically GPL, software..

Trained staff to use new technology, such as new Point of Sales.

Oversaw development of numerous website properties, chiefly 713-tickets.com.

Built enterprise Object Oriented PHP+MySQL websites and applications revolving around the TicketsNow / EventInventory, TicketNetwork, and StubHub/Ebay SOAP-based WebServices.

Pioneered effortless exchangeability between these disparate services.

Migrated existing web applications from embedded HTML to PHP and XSL Templates.

Migrated existing web applications from PHP 4 and MySQL 3 to PHP 5 and MySQL 5.

Used PEAR repository for XML_RPC, cross-platform database drivers and SOAP extensions.

Maintained multiple, distributed Linux servers running Gentoo Linux under heavy load (flash traffic of 100,000 or more people per hour during concentrated media campaigns).

Tickets To Go, Pearland, TX (Houston suburb). Jan 2005-May 2006. [W2]

Job Titles: Search Engine Marketer/Optimizer, Web Application Developer, System Administrator

Sole IT employee for a medium-sized ticket broker business.

Estimated 80% of all sales were from e-commerce, of which I was totally responsible.

Search Engine Optimizer (SEO) in heavily competitive secondary ticket market.

Maintained multiple, distributed and proxied Linux servers running at various points Debian, Fedora FC

2, and finally Gentoo Linux.

Troubleshooted office computers, network infrastructure and administrated remote servers.

Setup and maintained network services such as proxy servers, email exchanges, and DNS servers using

100% open source, typically GPL, software.

Maintained approximately 40 websites, chief of which was TicketsToGo.com, built around the

TicketsNow / Event Inventory SOAP WebServices, using PHP 4, MySQL 4, XSL and NuSOAP.

xMule, 2003-2008 (open source project).

Job Title: Project Lead

Maintained Drupal-based website: www.xmule.ws.

The X11 Mule.

Creator and maintainer.

Started as LMule, the Linux port of the popular Win32 program eMule.

Over 120,000 lines of Object Oriented C++ code using the Qt3/4 toolkit.

Runs on any platform that supports both GTK+ and X11, including MacOS X and Windows XP.

Translated into 30 languages.

Over 50 at least one-time contributors and 20 active developers.

Over 1 million downloads, 5 million including direct forks.

Supported and included by every major Unix distribution.

PHP-Egg, 1999-2003 (open source project).

License: GPL

Originally coded in PHP 2.0/Fi, migrated to PHP 3, 4 and 5.

Strived to be a fully-compatible Eggdrop bot for a host of disparate IRC networks.

Had a cult following in the pre-IM days as *the* most easily extensible IRC bot.

Translated to 15 different languages.

Database engines for MySQL 3, 4, 5 (both old and new), PostgreSQL 7 and 8, Sybase, and Oracle.

Fully Object Oriented, modularized and extensible.

Still one of the more advanced PHP-based daemons.

Contract work, Miscellaneous parties. Nov 2001-Mar 2003.

Numerous short- and long-term contract jobs, ranging from complex C++ ActiveX controls designed for

Visual Basic projects, migrating C++ applications from Windows to Unix/Linux and vice versa, to e-

commerce PHP and MySQL websites.

Became specialized in 2002 around refactoring existing codebases, particularly PHP and MySQL.

Handled numerous Linux and BSD server installations and upgrades for corporate clients;

developed

hands-free installers for a number of common Linux distributions, particularly Debian and RedHat.

Autogg, 1998-1999 (open source project).

A GPL-licensed front-end to the emerging Ogg Vorbis audio codec.

Written in C++ with the Qt framework

Backend progress bar was integrated into the existing oggenc.

Project handed off in 2000 to Magnar J. Grødem and available at

<http://autogg.sourceforge.net/>.

EWord Search, 1996 – 2000 (open source project).

A seek-and-find word game with text-based puzzle files.

Originally written in Visual Basic 4.

Ported over the years to Visual Basic 6, Perl/Tk, C++ Qt, Microsoft Visual C++ 6, Java 1.2, C++ wxWidgets, and in 2005, PHP 5 and AJAX.

Voted to be in the 2000 Australia Cybersource's Charity CD, the Open CD:

http://www.cyber.com.au/about/charity_fundraiser_cd_kit.pdf

Arizona Research Labs, University of Arizona, Tucson, AZ. Aug 2000-Oct 2001.

Job Title: Programmer

Part of a team of three who migrated University of Arizona's ARL websites from PHP 3 to PHP 4 and

MySQL 3.23.

Created <http://flyfood.arl.arizona.edu/> B2B e-commerce sites, which included PDF output, software for

integrating barcode-PDA readers and a cross-platform GUI in C++ and the Qt Framework, deployed on FreeBSD, Windows 2000, and Linux.

Appendix:

- BetterRimworlds Mods I've created:
- Stargate: Send pawns and items across Savegames on the same computer.
- Stargate DHD: Send pawns + items to different players with a fully functional DHD and Stargate Network: <https://stargate.zpf.io/>
- ZPM: Advanced battery from the Stargate universe.
- ThermoVoltaicGenerator: Using the Zero-Point Field by using ambient heat of hot planets/maps with the side-effect of being an effective form of AC.
- Zat'nik'tel
- Teleporter Room: Based on the Stargate Atlantis Teleporter Room: Swap items and pawns from one Room to another, across the planet, instantly.
- Uplifted Animals: Created a drug called ALZ-112 that uplifts Raccoons, Monkeys and other animals to semi-Sentient (haul, attack, rescue) and then, if they survive, to Fully Sentient members of your colony (almost identical to the main human colonists).
- Cortical Immunity: Save a pawn's relationships, skill levels, passions, etc. into a Cookie (think: Altered Carbon / Black Mirror). Upon death, the cookie is extracted and can be placed in a Pawn that recently died, in effect, resurrecting the original Pawn.