Zachary Watkins

Software Engineer III

watkinza@gmail.com
github.com/zachwatkins
zacharywatkins.com

Summary

I am a software engineer with 18 years of experience in website and web application development, CI/CD, DevOps, cloud services, database and system administration, and public speaking. I have also owned a consulting business and a farmer's market business where I sold fresh produce and dried herbs. I've spoken at conferences on document automation for rail safety factsheets, using story maps for project planning, and creating CI/CD pipelines. At Texas A&M University System I work with principal investigators to plan, create, and develop web applications, databases, and other solutions on Azure and AWS for transportation research grants.

Skills

Languages: PHP, SQL, JavaScript, TypeScript, HTML, CSS, Python, Bash

Frameworks: Laravel, Vue, WordPress

Libraries: React, Inertia, Playwright, Pest

Databases: SQL Server, MySQL, SQLite

Tools: Visual Studio Code, Docker, git, composer, npm, GitHub, wp-cli

Practices: Accessibility, OOP, CI/CD, UI and unit testing, documentation, SEO

Platforms: Azure, AWS, GitHub, Google Analytics, WP Engine

Milestones

2025 - Created project management and report generation application for research division using Laravel, redesigned UI for React road congestion map application, migrated data model and its form using feature flags.

2024 - Implemented various historical weather data feeds into IoT application localized to counting sites.

2023 - Created AADT reporting logic and helped establish a data-sharing program with the Federal Highway Administration.

2022 - Refactored data import and certification processes for an IoT sensor data application to reduce runtimes from 4 hours to 5 minutes and wrote a database connection circuit breaker process in PHP to reconnect after recoverable errors during high-throughput operations which trigger load balancing.

2021 - Rebuilt an in-house Ruby on Rails workstation ordering application in PHP for WordPress which launched that Fall. This application provides a manageable, authenticated storefront for the College of Liberal Arts' faculty and staff workstation ordering program.

2020 - Developed a custom WordPress theme based on the Genesis framework for Texas A&M AgriLife's News website (https://agrilifetoday.tamu.edu/) and launched it that year.

2016 - Developed and implemented a continuous deployment workflow for all of AgriLife's custom WordPress plugins and themes to deploy to an array of single and multisite installations totaling 1,000+ sites, 3,000+ users, and 100,000+ unique

monthly visits.

Education

Angelo State University / Bachelor of Fine Arts (GPA 3.29)
JUNE 2004 - DECEMBER 2008; SAN ANGELO, TEXAS

My coursework focused on graphic design and typography. I was a member of the Honors program and as part of this coursework I created a plan and presentation booth on my proposal to reevaluate and redesign the university's website to have an audience-based approach to its design and organization.

Certification

ITIL Foundation Level
OCT 2021; PeopleCert Credential ID GR671329641ZW

Cyber Secure Coder
DEC 2023; CertNexus Credential ID 2022003327

Experience

Software Engineer III
NOVEMBER 2021 - PRESENT; Texas A&M Transportation Institute

As the Communication division's custom full stack web application developer, I meet with researchers, project managers, and occasionally representatives for applied research grants to discuss goals, requirements, limitations, project schedules, and to give guidance on what the technology can do or additional features they may want to consider.

I am responsible for development, deployment, and maintenance of the applications and sites I work on which are either hosted on Azure or WP Engine. I also work with researchers to implement their statistical calculations into application code or refactor their SQL to work more efficiently when driven by the application.

I am also responsible for managing student technicians who assist with the projects I lead.

Freelance WordPress Developer
OCTOBER 2020 - MARCH 2023

I provide development, support, and consultation for a real estate agency client and their WordPress website. I refactored their custom CRM workflow to improve performance, security, and reliability, and then added unit tests to expedite testing this and future modifications. I have also implemented version control, SSH push deployment, custom AJAX driven search pages, and performance optimizations.

Software Applications Developer II
NOVEMBER 2020 - NOVEMBER 2021; Texas A&M College of Liberal Arts Dean's Office

I was the Lead Web / Applications Developer for the Dean's Office at the College of Liberal Arts. I completely rebuilt a critical self-hosted Ruby on Rails/Kubernetes application using PHP and WordPress to remove obstacles to its management and maintenance. I also moved their WordPress multisite network from self-hosted Kubernetes to WP Engine, performed security upgrades, implemented Active Directory authentication for WordPress users, and created and contributed to standard operating procedures for website governance.

Software Applications Developer II
APRIL 2015 - NOVEMBER 2020; Texas A&M AgriLife Communications

I was the lead developer for building, deploying, and maintaining in-house WordPress plugins and responsive themes in a way that minimized production cycles and was intuitive to content owners. I consulted with clients to scope work and create project plans. I was responsible for bringing our plugins and themes to meet accessibility and privacy regulations. I evaluated new technologies to implement into our workflow and gained experience working independently, remotely, and in an Agile environment. I established a continuous deployment and release pipeline for our repositories with automated tests and an average 7 minute lead time. I created performant, responsive, and branded themes used by agrilifetoday.tamu.edu, aglifesciences.tamu.edu, agrilife.tamu.edu, and more than a thousand other sites with 100,000 average monthly visits. I developed shell scripts to perform network-wide analysis and documentation tasks. My most advanced WordPress plugin while there helped our e-learning unit create, manage, and display a searchable collection of publications. github.com/agrilife/agrilife-learn-epubs.

Reynolds Web Solutions / Web Developer
MARCH 2009 - APRIL 2015; COLLEGE STATION, TEXAS

I provided web solutions for clients in the automotive industry that drove leads and helped them stay competitive online. I advised management on a timeline and technology budget to fulfill client requirements and wrote contracts upon approval. I was responsible for designing, developing, and implementing new features and themes within the constraints of the in-house content management system. I Implemented and debugged site performance issues and third party features. I was rewarded for creating an inventory listing enhancement that adds individualized price, incentive, and third party data. This saved a contract with a large dealership group. I developed processes for implementing Google Maps and Analytics, created a feature to attach vehicle-specific information to customer leads, and implemented email campaign landing pages with lead-specific data.

Volunteer

Speaker / Texas A&M Technology Summit 2025
Document Automation with Adobe InDesign
FEB 2025, FRISCO, TEXAS

Speaker / Collaboration Station Meet-up
Story Maps: Planning Outcome-oriented Solutions
AUG 2023, BRYAN, TEXAS

Speaker / Texas A&M Technology Summit 2022
Strategies for Resilient Web Applications and Websites
SEPT 2022, BRYAN, TEXAS

Speaker / Texas A&M Technology Summit 2019
Streamline Building, Deploying, and Maintaining Your (Higher-Ed) Websites with WordPress!
FEB 2019, BRYAN, TEXAS

Speaker / Texas A&M Technology Summit 2017
Continuous Deployment from Github to WP Engine

FEB 2017, BRYAN, TEXAS

Instructor / Binary Space

OCT 2013, BRYAN, TEXAS

WordPress Developer / Living Hope Baptist Church of Bryan

JAN 2011 - JAN 2013, BRYAN, TEXAS