

Joseph Kerkhof

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SUMMARY

Senior Backend Engineer with 6+ years building scalable, high-performant systems. Delivered complex products from ground-up (GM budget platform, NCAA-compliant payment systems) with 90%+ test coverage and sub-second response times. Deep expertise in system design, distributed architectures, and backend fundamentals. Proficient in PHP/Laravel with hands-on experience in Go and Python.

TECHNICAL SKILLS

Backend: PHP, Laravel, MySQL, Redis, RESTful APIs, Asynchronous Processing, Event-Driven Architecture

Frontend: React, TypeScript, JavaScript, Jest

Architecture: Domain Driven Design (DDD), CQRS, Event Sourcing, Action Pattern, SOLID Principles, Microservices

Infrastructure & DevOps: AWS, Linux, Docker, CI/CD Pipelines, Horizontal Scaling, Load Testing

Testing & Quality: PHPUnit, Pest, TDD, Integration Testing

Observability: Structured Logging, Distributed Tracing, StatsD Metrics

Methodologies: Agile/Scrum, Code Reviews, Technical Documentation

EDUCATION

University of Wisconsin — Oshkosh

Oshkosh, WI

M.Sc. in Data Science (Part-time); GPA: 4.00/4.00

Sept 2017 – Jun 2021

B.Sc. in Computer Science

Sept 2011 – Jun 2016

WORK EXPERIENCE

Teamworks

Remote, USA

Senior Software Engineer

May 2024 – Sept 2025

Tech Stack: Laravel, PHP, MySQL, Redis, AWS, Kubernetes, CI/CD

- Architected and delivered GM budget management product from the ground up in 3 months, processing athlete compensation across multiple universities with 90% test coverage and daily production deployments via automated CI/CD pipelines.
- Delivered integrated payment systems in 8 months ahead of the NCAA's July 2025 regulatory deadline, implementing modern architectural patterns (Domain Driven Design, CQRS, Action Pattern) while strictly adhering to SOLID principles.
- Engineered a high-performance RESTful API achieving sub-second response times through optimized database queries and asynchronous processing with Redis queues, implementing comprehensive observability via structured logging, distributed tracing, and StatsD metrics.

Prodege

Remote, USA

PHP Developer

Mar 2023 – May 2024

Tech Stack: PHP, Laravel, MySQL, Google Ads SDK, Cron Jobs

- Built automated Google Ads campaign management system reducing manual launch time from 8 hours to 30 minutes (90% reduction), while preventing \$20K-\$30K monthly ad spend wastage through real-time budget optimization and alerting.
- Modernized legacy PHP cron job infrastructure to Laravel 10, eliminating 15+ monthly job failures and reducing system maintenance time through improved error handling and monitoring.
- Optimized MySQL queries on 200GB+ tables, reducing query execution time from 45 seconds to under 3 seconds and improving dashboard load times by 85% through table redesign and proper indexing strategies.
- Found and fixed security issues including but not limited to remote code execution, SQL injection, and leaked credentials.

Clockwork

Minneapolis, MN

Senior Software Engineer

Mar 2019 – Mar 2023

Tech Stack: React, TypeScript, PHP, MySQL, Jest, AWS Serverless, Load Testing Tools

- Built web products serving 50K+ users as team Delivery Lead, managing sprint planning for 6-person team while architecting React/TypeScript frontends.
- Load-tested high-traffic website processing 100K+ daily requests to identify application and infrastructure bottlenecks, implementing horizontal scaling solutions that improved response times by 60% and eliminated timeout errors.
- Maintained and optimized high-volume promotion engine powering 350K+ customer accounts with thousands of daily transactions, ensuring 99.9% uptime through proactive monitoring and performance tuning using PHP and MySQL.

PROJECTS

Omnibus Config File Validator | [GitLab](#)

Tech Stack: Golang, Cobra

- A tool for validating GitLab Omnibus (gitlab.rb) configuration files. It checks for common misconfigurations, security issues, and best practices in a simple-to-use CLI tool. Testing, linting, building, and validation are all done in GitLab pipelines.

GitHub RSS | [GitHub](#)

Tech Stack: PHP, Laravel, Inertia, Vue.js

- RSS feed generator for GitHub repository activity monitoring built with PHP/Laravel, demonstrating clean architecture, dependency injection, comprehensive testing, RESTful APIs with limit-offset and cursor pagination, and modern software engineering practices.