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, 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.