Joseph Kerkhof

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Summary

A full-stack software engineer with extensive experience in developing practical, appropriately scaled solutions within collaborative, diverse teams. Equipped with a keen ability to build solutions that effectively minimize technical debt, consistently delivering high-quality code and maintainable software systems.

EDUCATION

University of Wisconsin — Oshkosh

M.Sc. in Data Science; GPA: 4.00/4.00 Sept 2017 - Jun 2021

B.Sc. in Computer Science

Oshkosh West High School Oshkosh, WI

High School Diploma

Sept 2009 - Jun 2011

Work Experience

Remote, USA Prodege

PHP Developer

• Created new tools using the Google Ads SDK to significantly accelerate the launch of new PPC campaigns, making the process 10 times faster. The new tools also automatically enable and disable PPC campaigns saving \$20K \$30K in unproductive spend.

- Refactored and upgraded PHP cron jobs and their dependencies leveraging modern Laravel and external APIs resulting in improved reliability to critical business functions.
- Streamlined MySQL queries and table design for large datasets (tables in the hundreds of GBs), resulting in enhanced performance and efficiency.

Clockwork Minneapolis, MN Mar 2019 - Mar 2023

Senior Software Engineer

- Led the development and deployment of new web products using React, Typescript, and Jest unit tests as team scrum master.
- Develop cloud-native apps on AWS using modern tools like Rust, TypeScript.
- Developed software maintenance plans and automation tools to sustainably and regularly reduce technology debt and automate repetitive, time-consuming tasks.
- Load-tested a high-performance website to find bottlenecks in the application and infrastructure layers and remediate them.
- Maintained a proprietary promotion engine powering >350K customer accounts with thousands of daily interactions using PHP.

University of Wisconsin — Oshkosh

Oshkosh, WI

Oshkosh, WI

Sept 2011 - Jun 2016

Mar 2023 - Current

Web Developer

May 2016 - Mar 2019

- Championed a migration of disparate Plone websites to a standardized WordPress Multisite on AWS.
- Led a team of 15 Computer Science student developers in design, programming, and standardization of MVC web-based applications using the .NET framework.

Affiliations & Volunteering

Thorn Data Science Hackathon (2019): Created tools for CSAM detection using natural language processing libraries.

Judge at Minnesota Technovation (2019): Technovation is a global tech education non-profit that inspires girls to be leaders and problem solvers in their community.

Campus Web Council of Wisconsin (2016 — 2019)

Projects

Filters and Fractals | GitHub

- A C project which implements a variety of image processing operations that manipulate the size, filter, brightness, contrast, saturation, and other properties of PPM images from scratch.
- Added recursive fractal generation functions to model popular fractals including Mandelbrot set, Julia set, Koch curve, Barnsley fern, and Sierpinski triangle in PPM format.

SKILLS

Programming: PHP, Rust, JavaScript, TypeScript, MySQL, Shell

Technologies: Git, Linux, AWS

Frameworks: Laravel, React, Jest, Tailwind, Bootstrap