

Christopher Fahey

Software Engineer | 5+ years experience | Java • SQL • Python • Next.js • React • PHP • C# • AWS

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Education

University of Wisconsin

B.S. Computer Science & Information Systems

River Falls, WI

Cum Laude

Software

Phantiva, LLC

Tacoma, WA

Experience

Principal Engineer

June 2025 – Present

- Develop **AWS**-native web applications for local businesses
- Build automated pipelines for video generation using **PixVerse**, **Hailuo**, and **ChatGPT**
- Produce high fidelity marketing videos using real-world photography augmented by AI
- Consult with clients on their web projects and social media campaigns
- Design and implement unified Phantiva branding across web presence

LiveNapalm Media

Tacoma, WA

Founder & Full Stack Developer

April 2023 – Present

- Developed and maintain an open source, high-performance photography portfolio website using **Next.js**, **React**, and **TypeScript**, featuring server-side image optimization
- Architected and deployed cloud-native infrastructure using **AWS** services (**Amplify**, **S3**, **CloudFront**, **Route 53**), implementing a globally distributed CDN for optimized image delivery and implementing custom domain management with SSL/TLS security
- Engineered responsive, mobile-first UI with **Tailwind CSS**, implementing touch gestures, keyboard navigation, and accessibility features for an enhanced user experience
- Implemented advanced image optimization and delivery system using **AWS S3**, featuring dynamic image loading, EXIF extraction, and performance-optimized image sizing
- Built custom content management system with **Markdown** support, enabling efficient photo gallery management and blog post creation
- Integrated SEO best practices including dynamic sitemap generation, meta tags, and OpenGraph support to improve search engine visibility
- Photographs published by *Decibel* and *Metal Injection*
livenapalm.com | github.com/chrisfahey1010/livenapalm-site

Metabolon

Morrisville, NC (*Remote*)

Software Development Engineer

Dec 2022 – June 2024

- Enhanced LabVantage LIMS user experience with features from new pipeline (**Java**)
- Deployed core services to production environments (**Docker** / **Azure** / **CI/CD**)
- Refactored validation software for lab equipment, improving accuracy (**Python**)
- Implemented database redesign for improved lab sample tracking (**SQL**)
- Built and tested REST API endpoints for core services (**C#** / **Python** / **Bash**)

TCP Software

River Falls, WI

Software Engineer II

May 2020 – May 2022

- Optimized server-side performance, reducing load time 90% for enterprise clients (**PHP**)
- Led small team refactor of a legacy backend module resulting in better SoC, full test coverage, legacy bug fixes, and full documentation (**Project Management**)
- Built automated tests to detect data corruption during deployments (**SQL**)

AmpliFi Loyalty Solutions

Naperville, IL

Software Developer Intern

May 2019 – Aug 2019

- Developed updates for a SaaS financial rewards web app (**JavaScript / Java Spring**)
- Cleared a year of tech debt in one month via testing (**JUnit**), algorithm simplification (**Java / C#**), and **SQL** validation
- Worked as a team-embedded developer in a Scrum workflow covering product lifecycle

VR Rehab

Clermont, FL (*Remote*)

Software Engineer

Aug 2016 – Apr 2017

- Developed tactical software for Windows and Android (**C# / Unity3D**)
- Wrote applications parsing realtime GPS data from drone hardware (**GIS / Python**)
- Created terrain maps for flight simulator demos, securing DoD project funding (**ArcGIS**)
- Built a small robot prototype for DoD smart ordnance project (**Robotics**)

Embry-Riddle Aeronautical University

Daytona Beach, FL

Software Developer

Nov 2014 – May 2017

- Developed research applications for Human Factors studies that were published in peer-reviewed journals and presented in-person at research conferences (**MATLAB**)
- Designed simulations in Arma 3 for published studies researching team performance

Projects

AWS Minecraft Server

Server Architect

Hosted a heavily-modded Minecraft server on an AWS EC2 instance. I created this server to collaborate with friends and experiment with cloud-hosted multiplayer. Hosting this on an EC2 instance was a cost-effective solution that allowed me to reliably run resource-intensive mods at minimal expense. Utilized SSH, Bash, AWS Console, and cost projections during the planning phase.

AWS Digital Media Library (*Capstone Project*)

Lead Developer

Led a small development team to develop a cloud-based media library with user collections using MVC architecture. I wrote the backend for this in Java, connecting our simple frontend to a MySQL database. I also maintained the EC2 instance hosting the app on AWS, utilizing SSH and Linux CLI. My team had a weekly sprint cycle and collaborated through Git.

Personal Script Development With ChatGPT

Home Project

Developed a series of helpful batch scripts with help from ChatGPT. I have a large digital catalog of photos and music, and working on them often requires extensive metadata edits to collections of files. I used ChatGPT to help write lightweight batch scripts which can be run on any Windows system easily (as opposed to managing a Python install). While I do not depend on AI for deep knowledge of complex systems, I have found tech such as ChatGPT very useful in rapid prototyping, and quite helpful in explaining programming logic.

Publication

Combat Identification in Mixed Gender Teams

Co-Author

Proceedings of the HFES 2017 Annual Meeting, Sept. 2017, pp. 2005 - 2009

Co-authored and published a research paper analyzing the effects of team gender composition on ability to identify combat vehicles. I developed research assessment applications using MATLAB, created virtual training environments in Arma 3, and individually trained human participants on armored vehicle aesthetics.

www.researchgate.net/publication/320545638