Alexander Herlan

Senior Software Engineer
DevOps & IT Manager

Alexander Herlan

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Overview

Senior software engineer with over 27 years of hands-on technology experience spanning software engineering, web design, database engineering, IT management, computer repair, and user experience design. My primary focus is full-stack web application development with Python and JavaScript.

Through professional roles, freelance work, and side projects, I have expanded my skills in DevOps, Docker, Kubernetes, cloud deployment, and resource management. I continue to explore Web3 and emerging technologies, and I am seeking a software engineering role where I can build reliable applications and contribute across the development lifecycle.

Experience

Independent Software Developer / Freelancer

JUNE 2024 - PRESENT

I develop and support web and Android applications for freelance clients, translating business requirements into working software. My work covers membership administration, e-commerce, automated document workflows, mobile object detection, and integrations with existing systems, from implementation through deployment, client feedback, and ongoing maintenance.

Selected Projects

Irish Pension Management

APRIL 2025 - MARCH 2026

- Expanded WordPress landing pages into a PHP and PostgreSQL membership application, working with an agency partner to translate administrative requirements into application workflows.
- Implemented individual and organisational applications, qualification checks, annual payments, monthly course-progress reviews, and downloadable PDF certificates.
- Built administrative dashboards and automated programme timelines, approved-leave handling, and certificate issuance to replace manual documentation tasks.

Technologies: WordPress, PHP, PostgreSQL

HeroEyez

JUNE 2024 - JUNE 2025

- Built two Android applications in Java and Kotlin and integrated them with the existing .NET HeroEyez portal, connecting device and IP-camera feeds to an incident-response workflow.
- Implemented TensorFlow Lite firearm detection, screenshot and video evidence capture, alerts, and a Twilio-powered call workflow. Evaluated YOLO and trained and tested detection models using more than 10,000 images to address mobile hardware constraints.
- Completed and deployed the end-to-end workflow in June 2025. Broader commercial rollout was subsequently paused because of market and regulatory constraints.

Technologies: Android, Java, Kotlin, TensorFlow Lite, Twilio, .NET integration

James & James Furniture

ORIGINAL BUILD: 2017; OCCASIONAL MAINTENANCE ONGOING

- Designed and developed the original e-commerce website in 2017 using WordPress and WooCommerce, customizing the theme to reflect the client's brand and creating responsive layouts for desktop and mobile shoppers.
- Implemented product catalogs and galleries, customer reviews, inventory management, promotional discounts, shipping calculators, payment gateway integrations, and a streamlined checkout process.
- Improved page loading through caching and image compression. Continue to provide occasional website maintenance and updates.

Technologies: WordPress, WooCommerce, PHP, responsive web design

Covius, LLC / Senior Software Engineer

JANUARY 2022 - APRIL 2024 · POMPANO BEACH, FL

At Covius, a nationwide real estate technology and holdings company, I contributed to the frontend and backend redesign of RealtyBid.com, an online real estate auction platform. The platform combined a REST API backend, a responsive JavaScript frontend, and asynchronous updates to provide users with real-time auction status. I also built internal tools for website administration and customer support.

Accomplishments

- Contributed to the complete redesign of a major legacy website containing extensive historical data.
- Helped manage and adapt a legacy database to support the redesigned platform.
- Built a responsive web application frontend for desktop and mobile browsers.
- Refined the user experience with QA testers and business partners through iterative sprints and testing sessions.
- Developed frontend functionality using Angular and RxJS.

SEAD Software / Software Engineer

APRIL 2021 - JULY 2022 · DELRAY BEACH, FL

At SEAD Software, I used Python and web development skills to build web applications and deliver business analytics for healthcare and legal clients. I also improved company-wide development operations with Azure DevOps and development pipelines to streamline team coordination.

Accomplishments

- Designed and implemented Python code using the Google Cloud Vision API to recognize and digitally categorize physical laboratory documents.
- Developed a text messaging web application using the Twilio API to automate customer responses and generate leads for law firms.
- Maintained and implemented Amazon Web Services infrastructure to support multiple projects
- Implemented and trained staff on Microsoft Azure DevOps development platform infrastructure
- Maintained a large Git code repository for multiple clients

Clarity Diagnostics & Lab Solutions / Director of IT

SEPTEMBER 2020 - JANUARY 2022 · BOCA RATON, FL

Managed IT operations and technology decisions for a medical testing laboratory and diagnostics test manufacturing business. Supported the company's expansion to work with organizations nationwide, including local and state governments. I also managed software quality control, deployment, and training for its sister company, SEAD Software.

Accomplishments

- Implemented a physical keycard/badge access security system for the entire laboratory facility
- Implemented and maintained security standards for email and cloud-based applications in Google Workspace and Microsoft 365
- Maintained client-facing websites
- Expanded laboratory infrastructure and assisted with quality assurance testing of medical equipment
- Managed and instructed other IT staff in their daily responsibilities

MyTap, aka Which Craft / Lead Developer

JANUARY 2016 - APRIL 2020 · ALBUQUERQUE, NM

At this startup, I collaborated with a team of designers to build a craft beer recommendation engine using web scraping and natural language processing (NLP) of online beer reviews. This work introduced me to practical applications of machine learning and AI.

Accomplishments

- Implemented a robust web scraper in Python using the Scrapy Python library

- Created a responsive web application frontend for mobile browsers
- Designed custom natural language processing code in Python to create craft beer flavor profiles based on adjective frequency in craft beer review text.
- Maintained a Django backend serving data from a PostgreSQL database

TriCore Reference Laboratories / Production Support Specialist

APRIL 2013 - JANUARY 2017 · ALBUQUERQUE, NM

Provided technology support to staff across multiple regional hospitals. Responsibilities included urgent password resets, troubleshooting healthcare applications such as Sunquest, retrieving patient medical records and diagnostic information, and monitoring systems for performance issues and errors.

Accomplishments

- Solely monitored and supported the company production environment overnight, handling troubleshooting and escalation for an environment supported by 60 staff during the day.
- Monitored the transmission of patient records between hospitals using different medical record systems and healthcare applications.
- Guided medical staff through time-sensitive IT troubleshooting affecting patient care.
- Monitored critical hospital infrastructure for performance and errors, correcting them promptly.
- Trained new help desk employees on their daily tasks and responsibilities
- Remained on-call off hours for emergency assistance.

Desert Digital Consulting / Software Engineer, Web Application Developer, IT Consultant

OCTOBER 2010 - JANUARY 2021 | REMOTE

Provided freelance services in software development, web design, information technology, and computer hardware design.

Skills

Programming Languages

Python (Flask, Django), JavaScript (Node.js, jQuery, Angular, AngularJS, RxJS), TypeScript, Go, PHP (WordPress, WooCommerce), Java, Kotlin, C, C++, CoffeeScript, HTML5, CSS3, Sass

Database Technologies

- **SQL:** Microsoft SQL Server, MySQL Server, PostgreSQL Server
- **NoSQL:** MongoDB, CouchDB, Redis
- **Other:** Microsoft Access, Microsoft Excel

Applications

- **Programming:** Microsoft Visual Studio, Visual Studio Code, PyCharm, Sublime Text 3, Devart dbForge, Microsoft SQL Studio, Vim, Eclipse, Git
- **Design:** Adobe Photoshop, Adobe Dreamweaver, Adobe Illustrator, Adobe Edge, Adobe InDesign
- **Productivity:** Microsoft Office, Google Docs (Drive), WordPerfect Suite
- **Virtualization:** VMware, VirtualBox, Docker, Kubernetes

Cloud Technologies

- Microsoft 365 and Google Workspace Administration
- Amazon Web Services (AWS) Administration
- Microsoft Azure DevOps Administration

Other

- Jira Agile Project Management skills
- Responsive web design
- Advanced (and remote) Linux administration
- Search engine optimization (SEO) for Google and Bing
- Social media presence implementation (Facebook, Twitter, Instagram, etc.)

Education

University of New Mexico

BS, Computer Science

SEPTEMBER 2003 - SEPTEMBER 2008

Certifications

- Beginning Programming in C++
- Intermediate Programming in C++
- Advanced Visual C++
- Beginning Visual Basic
- Intermediate Visual Basic

Central New Mexico Community College (aka TVI)

- Beginning Photoshop
- Intermediate Photoshop
- Advanced Photoshop
- Introduction to Lightwave 3D

References

David Foy · Senior Software Engineer · Covius: 407-954-1245

Warren Wright · CEO · SEAD Software: 201-988-1513

Ashley Park · Director · Clarity Diagnostics: 508-341-5387

Douglas Radecki · CEO · MyTap / Which Craft: 505-400-4636