

Alexander Herlan

Senior Software Engineer Full-Stack & DevOps

Summary

Work Experience

Alexander Herlan

Albuquerque, NM

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WEBSITE

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PROFILE

LinkedIn

CODE

GitHub

Senior software engineer building Python and JavaScript applications, REST APIs, and cloud infrastructure. Experience modernizing real estate platforms, automating membership workflows, and deploying Android machine learning applications. Combines full-stack development with database engineering and DevOps.

Independent Software Developer / Freelancer

JUNE 2024 - PRESENT

- Delivered 3 selected client projects spanning mortgage lending, membership management, and Android safety applications, covering architecture, implementation, cloud deployment, and support.

Selected Projects

Equity Funding Source

APRIL 2026 - JULY 2026

- Developed a Preact and Bun mortgage platform supporting 3 user groups: borrowers, lenders, and administrators, with application workflows, collaboration, and secure document handling.
- Deployed serverless application logic and relational data on Cloudflare Workers and D1, with Durable Objects enabling real-time messaging and R2 storing loan documents.

IIPM.ie

APRIL 2025 - MARCH 2026

- Expanded WordPress landing pages into a PHP and PostgreSQL platform supporting 2 membership types, individual and organizational, with annual payments and monthly progress reviews.
- Automated 3 previously manual workflows: program-timeline calculations, approved-leave handling, and PDF certificate issuance; added dashboards for membership, qualifications, payments, onboarding, and course progress.

SafeSchoolz

JUNE 2024 - JUNE 2025

- Built 2 Android applications in Java and Kotlin: Media Pipe detects firearms, while Aegis coordinates incident alerts with the .NET-based HeroEyez portal.
- Trained and tested a TensorFlow Lite detection model on 10,000+ firearm images, selecting it over YOLO to improve accuracy within mobile hardware constraints.
- Integrated 60-second evidence clips, screenshots, and Twilio calls into the incident-alert workflow; completed deployment in June 2025 before the broader commercial rollout paused.

Covius, LLC / Senior Software Engineer

JANUARY 2022 - APRIL 2024 | POMPANO BEACH, FL

- Integrated REST APIs and asynchronous auction updates into the RealtyBid.com redesign, giving bidders real-time auction status across desktop and mobile browsers.
- Delivered responsive Angular and RxJS interfaces across desktop and mobile browsers, incorporating QA and business feedback through iterative development sprints.
- Modernized a legacy database for the redesigned auction platform and created internal tools enabling website administration and customer support.

SEAD Software / Software Engineer

APRIL 2021 - JULY 2022 | DELRAY BEACH, FL

- Digitized physical laboratory documents with Python and Google Cloud Vision, automating text recognition and categorization for healthcare document processing.
- Designed a Twilio messaging application that automatically responded to customer interactions and generated leads for law firms.
- Established Azure DevOps development pipelines and instructed staff on their use, coordinating delivery across client projects backed by AWS infrastructure and a shared Git repository.

Clarity Diagnostics & Lab Solutions / Director of IT

SEPTEMBER 2020 - JANUARY 2022 | BOCA RATON, FL

- Directed laboratory and diagnostics manufacturing IT operations through expansion to nationwide clients, including local and state governments.
- Secured laboratory access with a badge system and enforced email security standards in Google Workspace and Microsoft 365; assisted medical equipment quality assurance.
- Supervised IT staff and coordinated software quality control, deployment, and user training for SEAD Software while maintaining client-facing websites.

MyTap, aka Which Craft / Lead Developer

JANUARY 2016 - APRIL 2020 | ALBUQUERQUE, NM

- Extracted online beer reviews with Python Scrapy and analyzed adjective frequency to generate flavor profiles used by the craft beer recommendation engine.
- Implemented a Django and PostgreSQL backend serving beer recommendations through a responsive mobile web application developed with a design team.

TriCore Reference Laboratories / Production Support Specialist

APRIL 2013 - JANUARY 2017 | ALBUQUERQUE, NM

- Monitored the production environment as the sole overnight specialist, troubleshooting and escalating incidents for systems supported by 60 staff during the day.
- Resolved urgent hospital access and Sunquest issues, checked patient-record transfers between medical systems, and coached help desk staff on troubleshooting procedures.

Technical Skills

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- **Languages:** Python, JavaScript, TypeScript, PHP, Go, Java, Kotlin, C, C++, HTML, CSS, Sass.
 - **Frameworks and APIs:** Django, Flask, Angular, RxJS, Preact, Node.js, Bun, WordPress, REST APIs, Twilio, Scrapy.
 - **Databases:** PostgreSQL, Microsoft SQL Server, MySQL, MongoDB, CouchDB, Redis.
 - **Cloud and DevOps:** AWS, Azure DevOps, Cloudflare Workers, D1, Durable Objects, R2, Docker, Kubernetes, Linux, Git, Jira.
 - **Machine Learning and Mobile:** TensorFlow Lite, Google Cloud Vision API, natural language processing, Android.

Education

University of New Mexico

Programming studies in C++, advanced Visual C++, and Visual Basic.

Central New Mexico Community College (aka TVI)

Coursework in Adobe Photoshop through advanced level and introductory Lightwave 3D.