

Alexander Herlan

Senior Software Engineer Full-Stack & DevOps

Albuquerque, NM

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SUMMARY

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.

WORK EXPERIENCE

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

- Redesigned RealtyBid.com frontend and backend components with the engineering team, exposing real-time auction status through REST APIs and asynchronous updates.
- 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

- Automated laboratory document recognition and categorization with Python and the Google Cloud Vision API, converting physical records into digitally classified documents.
- Designed a Twilio messaging application that automatically responded to customer interactions and generated leads for law firms.
- Established Azure DevOps development pipelines and trained 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

- Engineered a Python Scrapy pipeline and natural language processing logic that transformed online beer reviews into flavor profiles for a 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 trained help desk staff on troubleshooting procedures.

TECHNICAL SKILLS

- **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.