Jeremey Bingham

Backend Engineer and IT Leader

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linkedin | github | pdf version

15+ years of technology leadership and software development, mostly for Realtor associations and real estate technology, including 8+ years building production Python backend systems. I have built Django REST APIs serving 20M+ residential property records, run IT for a state association of 25,000+ Realtors, and delivered data integration projects end to end as a solo consultant. Fully remote for 4+ years. I work as the bridge between engineers and business stakeholders, and since October 2025 I have used Claude Code as my main development partner, measuring its output before trusting it.

Backend Engineer, HouseCanary

2022 - 2024, San Francisco, CA (Remote)

- Architected Django REST APIs serving 20M+ residential property records and tens of thousands of requests a day, with OAuth 2.0/JWT authentication and API security controls.
- Migrated the Django API to Go and GraphQL, cutting response times 80% (3.0s to 0.6s) for hundreds of corporate accounts.
- Led a pilot AVM (automated valuation model) product for the Federal Housing Administration from conception to production, owning full-stack development, security and AWS infrastructure in a regulated environment with strict data protection requirements.
- Engineered the microservices architecture for AVM and home inspection order processing, sustaining 99.9% uptime for Federal Housing Administration operations.
- Cut AWS infrastructure costs 35% through Docker containerization and EKS resource management, with CI/CD pipelines for automated deployment.
- Implemented monitoring and observability with Prometheus, Grafana and Sentry; managed PostgreSQL at scale, including schema design, query optimization and data migrations.

Founder, Mansard Consulting

2019 - 2022, Boston, MA (Remote)

- Solo consulting practice building software, data integrations and IT infrastructure for Realtor associations, on 4-6 month projects; delivered each one end to end, from requirements to deployment.
- Architected an API translation and integration service handling 1M+ monthly transactions with 99.5% uptime, synchronizing data across MLS providers, CRM platforms, and state and national association databases.
- Built a SaaS platform connecting external datasets and APIs to Microsoft Dynamics CRM, saving clients 40% over their existing solutions.
- Built Python data pipelines for member data management, event tracking and business intelligence, with database schemas for multi-organization reporting.

Software Engineer, Potamus Trading

2019 - 2020, Boston, MA (Remote)

- Built a real-time analytics pipeline for intraday market data ingestion with sub-second latency, for a high-frequency trade execution platform.
- Built real-time dashboards tracking trade order execution progress and estimated arrival times for the trading team.
- Load-tested the systems under peak conditions to keep them stable through high-volume periods of 100K+ transactions a day.

Director of Information Technology, Massachusetts Association of Realtors

2015 - 2019, Waltham, MA

- Directed IT operations and vendor management for a state association of 25,000+ Realtors, with a team of 3 and a $500K+ budget.
- Cut IT operating costs 40% ($120K a year), mostly through vendor management and contract negotiation, and partly through cloud migration.
- Led the migration from on-premise infrastructure to Office 365, Exchange Online, Azure and SharePoint.
- Built custom Python/Flask APIs for state and national Realtor organizations, integrating legacy systems (including CRM) with modern web applications, deployed with NGINX/uWSGI in Docker on AWS and Azure.
- Designed the association's data strategy, integrating CRM, membership databases and external sources (MLS, NAR, state databases) with bidirectional synchronization across 25,000+ member records.
- Served 4 years on the National Association of Realtors' Data Strategies Committee and Federal Technology Policy Task Force.

Director, Data Strategies & Government Affairs, Realtors Association of the Palm Beaches

2014 - 2015, West Palm Beach, FL

- Directed the first project in the country to integrate MLS sales data into an association's CRM (RAMCO), to track how education programs and other factors affected members' home sales.
- Matched about 71% of a 13,000-member database to voter records, and used it to run the association's 2014 get-out-the-vote effort with member-specific candidate slates.
- Increased RPAC contributions 30% from 2014 to 2015 using data modeling, analytics and new data integrations.

Director, IT, Government Affairs & Public Relations, Realtor Association of Martin County

2007 - 2014, Stuart, FL

- Proposed and led a 3-year move from a legacy membership database to Microsoft Dynamics CRM, including data migration and transformation, saving $150,000 over 5 years.
- Administered the association's IT, websites and RAMCO CRM, with bidirectional synchronization to the local MLS and state and national databases.
- Ran government affairs and public relations, including a weekly real estate column in the local newspaper.

doorplate: open-source US address parser (Rust, Python)

github.com/jeremeybingham/doorplate | crates.io and PyPI | October 2026

- An offline US address parser and formatter: a Rust core with Python bindings, a CLI and an in-browser WebAssembly demo, producing USPS Publication 28 lines, RESO Data Dictionary fields and a canonical match key.
- Parses 98.3% of whole addresses correctly on its benchmark suite (16,001 addresses), against 96.1% for usaddress, the common Python parser, and runs about 4.3x faster on one thread.
- Reproducible benchmark suite run in CI; parsing never panics, enforced by fuzzing; ran over a 146.6M-row national address file with no errors.
- Five releases in eight days, built with Claude Code as the implementation partner, with a measurement on real data for every rule change.

reso-client: Rust library for the RESO Web API

github.com/jeremeybingham/reso_client | crates.io | October 2025

- A Rust client for the RESO Web API (OData 4.0), the standard data interface MLS providers across the US use, with a fluent query builder and replication endpoints for bulk transfer.
- About 100% line coverage across 189 unit, integration and doc tests; CI with GitHub Actions and Codecov.

CareCircle: Django web app in production

github.com/jeremeybingham/CareCircle | January 2026

- A mobile-first Django app in daily use by a child's 5 caregivers, keeping one shared record so each hand-off between home, school and therapy starts with what the last caregiver saw.
- Runs on AWS Lightsail behind Caddy with Gunicorn, systemd and PostgreSQL; merging to main runs the tests and deploys, with daily verified backups.

Languages

Python · Go · Rust · SQL · JavaScript · Bash · PowerShell

Frameworks

Django · Django REST Framework · Flask · GraphQL · Axum

Data

PostgreSQL · SQL Server · Microsoft Dynamics CRM · pandas · Polars · DuckDB · RESO Web API / OData · Data pipelines

Cloud / Infrastructure

AWS (S3, EC2, EKS, RDS, Lightsail, CloudFront) · Azure · Docker · Kubernetes · Linux · Caddy · NGINX

DevOps

CI/CD · GitHub Actions · Prometheus · Grafana · Sentry · Fuzzing and benchmarks

AI-Assisted Development

Claude Code · Agent instructions and quality gates · Context management · Verifying AI-generated code

Security

OAuth 2.0 | JWT Authentication | API Security | Regulated Environments

Management

Vendor Management | Budgets and Procurement | Agile | Stakeholder Communication

Key Achievements

- **Performance**: Cut API response times 80% (3.0s to 0.6s) by migrating a Django API to Go and GraphQL.
- **Cost Reduction**: Cut IT operating costs 40% ($120K a year) at a state association, and AWS costs 35% at HouseCanary.
- **Scale**: APIs serving 20M+ property records; an integration service handling 1M+ transactions a month.
- **Industry Service**: 4 years on National Association of Realtors technology and policy committees, shaping data strategy and federal technology policy positions for its 1.5M+ members.

- **Remote Work Experience**: 4+ years of fully remote engineering and consulting
- **Independent Delivery**: Complete project lifecycles as a solo practitioner, from requirements to production
- **Availability**: Seeking a remote full-time role in backend engineering, real estate data, applied AI or infrastructure
- **References**: Available upon request