Aharon Zbaida

Data Analyst – Complete Professional History

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Professional Summary

Data analyst with 18+ years of operational experience in construction project management — budgets, cost tracking, procurement, and financial reporting — combined with SQL and Python skills across financial services, R&D, and operational analytics. I build reproducible analysis workflows, interactive dashboards, and statistical validation tools that deliver clear, actionable insights.

Available for remote Data Analyst opportunities in financial services, construction technology, insurance, and organizations that value analytical skills and cross-domain experience.

Core Competencies

Data Analysis & Business Intelligence

- **Querying & Analysis:** SQL (PostgreSQL, DuckDB), Python (pandas, NumPy), Excel (pivot tables, VLOOKUP, data modeling)
- **Visualization & BI:** Tableau, data dashboards, Chart.js, reporting & presentation
- **Data Engineering:** Data pipelines, data cleaning & validation, ETL processes, CSV/JSON/API data sources

Statistical Analysis & Research

- **Methods:** Hypothesis testing, A/B analysis, bootstrap methods, trend analysis, regression, permutation testing
- **Time-Series:** Temporal analysis, cohort segmentation, confidence interval estimation
- **Research:** Rigorous methodology, reproducible workflows, honest reporting of findings

Operational & Project Analytics

- **Financial Controls:** Cost estimation, budget analysis, budget-vs-actual reporting, financial reporting
- **Project Data:** Scheduling analysis, procurement tracking, progress reporting, compliance documentation
- **Domain:** Construction cost data, construction operations, R&D project management, regulatory compliance

Technical Skills

- **Languages:** Python, SQL, JavaScript, Java, Bash
- **Data Tools:** pandas, NumPy, DuckDB, PostgreSQL, Excel, Tableau
- **Infrastructure:** Data pipelines, API integration, Docker, Git
- **Visualization:** Chart.js, dashboards, automated reporting, data presentation

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Professional Experience

Data Analyst & Researcher | Remote | 2020–Present

Focus on financial data analysis, statistical validation, and dashboard development.

Key Projects: - **Financial Data Analysis Pipeline:** Built reproducible analysis pipeline for structured financial data with time-aware data splits, cohort segmentation, and automated reporting. Processed 7,876 records/sec with optimized data representation - **Market Data Statistical Research:** Analyzed 224,000 records across 24 currency instruments using bootstrap and permutation testing. Created summary dashboards with confidence intervals and

significance metrics. Honest reporting of findings — most apparent patterns did not survive statistical scrutiny - **Statistical Validation Tools:** Built tools for time-series analysis in non-stationary financial environments with automated reporting - **Trading Strategy Dashboard:** Created interactive dashboard for strategy performance evaluation with exportable PDF reports - **Hebrew Bible Analysis Suite:** Built the first open-source JavaScript replication of the 1994 WRR Bible Codes experiment — 11-tool browser-based platform processing 304,805 Hebrew letters. Web Workers for off-thread ELS scan and permutation testing, KMP+Boyer-Moore pattern matching with Hebrew final-form normalization, compressed data pipeline (630MB→21MB via gzip/DecompressionStream), Three.js 3D WebGL visualization, custom GIF89a encoder, 1.74M pre-computed ELS hits for Hebrew calendar date heatmap. Zero npm packages, zero build steps, PWA (works offline). WRR replication achieved $P = 0.0012$ — consistent with the finding that no independent researcher has reproduced the original $P < 0.00002$ in 30+ years

Technologies: Python (pandas, NumPy), SQL, data visualization, statistical analysis, JavaScript, Web Workers

Founder & CTO | Peoples' FinTech LLC | Los Angeles, CA | 2017–2020

Led data platform development integrating multiple financial data sources for analysis and reporting.

Responsibilities: - Built expectancy calculator dashboard for strategy performance evaluation (Dr. Van Tharp framework) - Integrated multiple financial data sources into unified analysis and reporting platform - Managed team of contract developers; responsible for data architecture, analysis methodology, and product roadmap - Designed data pipelines and reporting infrastructure

Technologies: Python, SQL, data pipelines, dashboard development, cloud infrastructure (AWS)

Business Impact: Platform enabled systematic analysis across multiple asset classes with comprehensive performance tracking and reporting

Construction Operations & Cost Analysis | Anitani LLC / Zbaida LLC | New Jersey | 2002–2024

Managed project budgets, cost tracking, and financial reporting for residential and commercial construction over 18+ years.

Data & Analysis Work: - Created and maintained project budgets with cost tracking across concurrent phases - Produced budget-vs-actual reports for project stakeholders - Built procurement schedules and cost estimates using spreadsheet models - Prepared progress reports, compliance documentation, and regulatory reporting - Tracked financial performance across multiple concurrent projects

Key Achievements: - 18+ years of continuous construction project management and financial reporting - Delivered projects on-time and within budget with zero safety incidents - Managed scheduling and financial controls across concurrent project phases - Built repeatable budgeting and reporting processes

Skills: Cost estimation, budget tracking, procurement, scheduling, financial reporting, compliance documentation

Programming Manager | Concord Wealth Management | Los Angeles, CA | 2007–2008

Led 8-person development team for financial services platform.

Responsibilities: - Managed development team and sprint planning - Oversaw platform development and data reporting systems - Coordinated with product team on feature development and analytics - Conducted code reviews and technical mentoring

Technologies: Web application development, database design, API integration, financial data systems

Project Engineer | Daren Labs Scientific | Nes Ziona, Israel | 2014–2016

Data collection, analysis, and reporting for R&D projects at startup innovation center.

Responsibilities: - Collected and analyzed data for medical device, chemical product, and materials R&D projects - Developed time-tracking application for research project management - Prepared technical reports, contract research proposals, and project documentation - Set up laboratories for innovation center clients

Specializations: R&D data analysis, technical reporting, project documentation, laboratory setup

Research & Algorithm Engineer | Anitani Solutions | 2003–2017

Statistical analysis of financial data and performance evaluation systems.

Projects: - Statistical analysis and backtesting of financial market data - Data pipeline development for market data processing - Performance analysis and evaluation frameworks - Automated reporting systems

Technologies: Python, SQL, statistical analysis, API integration, data pipelines

HVAC Technician | Cold Bear HVAC | NJ & NYC | 1990s–2001 (Seasonal)

Installation, service, and repair of HVAC equipment during spring/summer seasons.

Education

Bachelor of Science in Biomedical Engineering Rutgers University, New Brunswick, NJ | Graduated 2001

- **Senior Project:** Medical image processing library in Java
- **Research:** Mathematical modeling of cardiac muscle contractility (published)
- **Coursework:** Systems physiology, biomechanics, signal processing, medical imaging, instrumentation

Construction Management Certificate Middlesex County College, Edison, NJ

- **Coursework:** Project planning, scheduling, cost control, safety, blueprint reading, construction methods

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Publications

Zbaida, A., Rosenman, J., Hunter, W., Nikolic, S. "Series Elastic Fiber Damage in Stunned Myocardium." *American Journal of Hypertension*, v. 13, p. 51A, (2000).

Research Focus: Mathematical modeling and data analysis of cardiac mechanics. Developed computational models, collected experimental data, and conducted statistical validation.

Selected Projects & Open Source

Data Analysis & Software

Market Data Statistical Analysis | GitHub Statistical research on forex market data. 224K records across 24 instruments with rigorous bootstrap and permutation testing.

Automated Strategy Analysis System | GitHub Performance evaluation with genetic optimization. Integration with financial data API for automated analysis.

Expectancy Calculator Dashboard | Live Demo Interactive strategy performance evaluation tool. Expectancy calculation, risk-reward ratios, Monte Carlo simulation, PDF export.

Hebrew Bible Analysis Suite | Live Demo | GitHub | Portfolio First open-source JavaScript replication of the 1994 WRR Bible Codes experiment. 11 interactive research tools processing 304,805 Hebrew letters across 39 Tanakh books. Web Workers, KMP+Boyer-Moore search with sofit normalization, Three.js 3D WebGL visualization, custom GIF89a encoder with LZW compression, compressed data pipeline (630MB→21MB), 1.74M pre-computed ELS hits. Zero npm packages, zero build steps, PWA. WRR replication: P = 0.0012 with fully transparent methodology. Built with Claude Code (Anthropic) as a development accelerator.

Bilingual Business Process Application Data-driven document generation platform with Hebrew/English bilingual interface.

Technical Skills

Data Analysis & Querying

Languages: SQL (PostgreSQL, DuckDB), Python (pandas, NumPy), Excel (pivot tables, VLOOKUP, data modeling)
Analysis: Data cleaning, validation, transformation, cohort analysis, trend analysis

Visualization & Reporting

Tools: Tableau, Chart.js, data dashboards, automated reporting **Output:** Interactive dashboards, PDF reports, stakeholder presentations, data storytelling

Statistical Methods

Core: Hypothesis testing, bootstrap methods, permutation testing, A/B analysis, regression **Applied:** Time-series analysis, Monte Carlo simulation, confidence intervals, significance testing

Infrastructure & Engineering

Systems: Data pipelines, ETL, API integration, Docker, Git **Data Sources:** CSV, JSON, REST APIs, financial data feeds, spreadsheet models

Domain Expertise

Financial: Market data analysis, cost analysis, performance metrics, strategy evaluation **Operational:** Budget tracking, cost reporting, scheduling, procurement, compliance documentation **Research:** R&D data collection, technical reporting, experimental methodology

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Languages

- **English:** Native
- **Hebrew:** Professional working proficiency

Professional Affiliations & Certifications

- Published research in peer-reviewed biomedical journal
- Construction project management (practical experience across 18+ years)
- Cross-domain data analysis (financial, operational, R&D, biomedical)

Geographic Availability

Primary: United States (remote) **International:** Available for remote opportunities in Israel **Preference:** Remote work

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References

Available upon request

Last Updated: February 2026