Aharon Zbaida - Resume

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Data Analyst – Financial & Operational Data | Remote

Data analyst with 18+ years of hands-on operational data experience — budgets, cost tracking, variance analysis, procurement, and compliance reporting across construction, financial services, and R&D. This deep domain knowledge, combined with strong SQL and Python skills, sets me apart from candidates who've only seen operational data in textbooks. I build reproducible analysis workflows, interactive dashboards, and statistical validation tools that turn complex datasets into clear, actionable insights.

Skills

Data Analysis & Querying: SQL (PostgreSQL, DuckDB), Python (pandas, NumPy), Excel (pivot tables, VLOOKUP, data modeling) **Visualization & BI:** Tableau, data dashboards, Chart.js, reporting & presentation **Statistical Analysis:** Hypothesis testing, A/B analysis, bootstrap methods, trend analysis, regression **Data & Systems:** Data pipelines, data cleaning & validation, ETL processes, CSV/JSON/API data sources **Domain:** Financial data analysis, construction cost data, procurement analytics, project budget tracking, operational reporting, regulatory compliance

Selected Data Analysis Projects

Financial Data Analysis Pipeline

Built reproducible analysis pipeline for structured financial data supporting strategy evaluation and risk assessment.

- **Problem:** Needed to analyze large financial datasets across multiple time periods while preventing data leakage between analysis windows
- **Approach:** Built reproducible analysis pipeline with time-aware data splits, cohort segmentation, and automated reporting of key financial metrics
- **Outcome:** Enabled consistent, auditable analysis across multiple financial instruments with clear documentation of methodology and findings
- **Tools:** SQL, Python (pandas), data validation, automated reporting

Market Data Statistical Analysis

Evaluated whether patterns in forex market data represent genuine trends or random noise.

- **Problem:** Evaluate whether patterns in forex market data represent genuine trends or random noise
- **Approach:** Applied statistical testing (bootstrap, permutation tests) across 224K records and 24 instruments. Created summary dashboards showing confidence intervals and significance metrics
- **Outcome:** Produced rigorous analysis report with clear visualization of findings — including honest reporting that most apparent patterns did not survive statistical scrutiny
- **Tools:** Python, statistical analysis, data visualization

Trading Strategy Performance Dashboard

Built interactive dashboard for evaluating and comparing strategy performance metrics.

- **Problem:** Traders needed a clear way to evaluate and compare strategy performance metrics
- **Approach:** Built interactive dashboard calculating expectancy, risk-reward ratios, and drawdown analysis from trade log data (CSV/manual entry)
- **Outcome:** Live tool used for strategy evaluation with exportable PDF reports
- **Tools:** JavaScript, Chart.js, statistical calculations, PDF generation
- **Link:** Live Demo

Professional Experience

Data Analyst & Researcher | Remote | 2020–Present

- Analyzed financial datasets (224K+ records across 24 instruments) using Python and SQL
- Built statistical validation tools for time-series analysis with automated reporting
- Created interactive dashboards for trading strategy performance evaluation
- Developed data pipelines for cleaning, transforming, and validating market data from API sources
- Built the first open-source JavaScript replication of the 1994 WRR Bible Codes experiment — 11-tool browser-based platform processing 304K Hebrew letters with Web Workers, compressed data pipeline (630MB→21MB), and permutation testing ($P = 0.0012$)
- Technologies: Python (pandas, NumPy), SQL, JavaScript, Web Workers, data visualization, statistical analysis

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

- Led data platform development integrating multiple financial data sources for analysis and reporting
- Built expectancy calculator dashboard for strategy performance evaluation (live demo available)
- Managed team; responsible for data architecture, analysis methodology, and product roadmap
- Technologies: Python, SQL, data pipelines, dashboard development

Construction Operations & Cost Analysis | Anitani LLC / Zbaida LLC | NJ | 2002–2020

- Managed project financial data and reporting for residential and commercial construction over 18+ years — the operational data experience that grounds my analytical work
- Tracked cost data across 3–5 concurrent project phases; produced budget-vs-actual reports and variance analysis for stakeholders
- Built and maintained project budgets ($50K–$500K+), procurement schedules, and cost estimates in spreadsheet models
- Delivered projects on-time and within budget with zero safety incidents across two decades of operations
- Skills: Construction cost data, budget-vs-actual analysis, procurement data management, variance analysis, scheduling, compliance reporting

Earlier Roles | 2003–2016

Programming Manager – Concord Wealth Management (2007–2008): Led 8-person dev team building financial services platform; data reporting and platform analytics **Project Engineer** – Daren Labs Scientific, Israel (2014–2016): Data collection, analysis, and reporting for R&D projects; time-tracking application development **Research & Algorithm Engineer** – Anitani Solutions (2003–2017): Statistical analysis of financial data; backtesting and performance analysis

Education

B.S. Biomedical Engineering – Rutgers University, 2001 Senior project: Image processing library in Java | Research: Mathematical modeling of cardiac muscle contractility (published)

Publications

Zbaida, A., et al. "Series Elastic Fiber Damage in Stunned Myocardium." *American Journal of Hypertension*, v. 13, p. 51A, (2000).

Open Source

Hebrew Bible Analysis Suite: First open-source JS replication of the 1994 WRR experiment — 11 tools, 304K letters, Web Workers, KMP+Boyer-Moore search, Three.js 3D visualization, compressed data pipeline (630MB→21MB), PWA. Zero npm packages, zero build steps. $P = 0.0012$ with transparent methodology. (Live | GitHub) **Expectancy Calculator:** Strategy performance evaluation tool (Live) **Market Data Statistical Analysis:** Statistical research on forex data (GitHub) **Automated Strategy Analysis:** Performance evaluation with genetic optimization (GitHub)