

ALLISON BERGMANN

AI/ML Manager | Technical Solutions Architect

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PROFESSIONAL SUMMARY

Results-driven AI/ML leader, technical solutions architect, and data scientist with 8+ years of experience across fintech, retail, and business intelligence spaces, and 4+ years managing high-performing teams of up to 13 reports. Proven success in building full-stack AI production systems, recommender systems, and data-driven solutions for companies, ranging from early-stage startups to Fortune 500 firms.

EXPERIENCE

Ulta Beauty Remote

June 2023 – Present

Manager – Enterprise AI

- Manage 13 AI/ML data scientists with a proven track record of developing talent, building high-performing data-focused teams, hands-on mentoring, and facilitating cross-disciplinary projects while fostering organizational collaboration.
- Lead AI Proof of Value and AI Scaling pods to deliver 0-1 initiatives, driving vision, roadmaps, delivery, and deployment across cross-functional teams.
- Oversee end-to-end development and optimization of reinforcement learning recommendation pipeline and algorithm improvements from ideation to testing and deployment, resulting in a team revenue increase of +81% YoY.
- Prioritize and execute key projects, balancing technical feasibility, business needs, and production timelines, while significantly reducing development lifecycle times by 50% through up-leveling of process (use of OOP, unit test coverage, code reviews).
- Collaborate cross-functionally with product owners, engineers, UX/UI, and business leaders to define product goals and KPIs, leveraging emergent technologies where applicable.
- Contribute to AI/ML project efforts, including upgrades in a 3000 RPS real-time common service that resulted in a team-wide 80% reduction in algorithm development time.
- Improve backend efficiency, reliability, and monitoring through efforts like an Agentic MLOps framework that scans GCE and handles Level 1 support and model drift detection.

Lead AI Engineer – Digital Innovation

- Manage and mentor a team of four AI/ML data scientists, guiding full-lifecycle projects while simultaneously delivering individual contributions that advance business impact.
- Designed, researched, and implemented data science projects that leveraged computer vision, gamification, and AI in the retail digital innovation space.
- Collaborated on 4 net-new projects that saw expanded audience reach of 120%, generated 6.7x incremental revenue, and a 14-42% increase in customer CTR.
- Engineered and rebuilt legacy recommender systems and omni-channel customer-facing personalization integrations that resulted in eight-figure incremental revenue increases.
- Delivered an end-to-end wayfinding indoor positioning pilot, facilitated third party vendor relationships, and navigated project messaging with internal stakeholders.
- Spearheaded architectural restructuring and team process improvement initiatives, such as VM and GCP ecosystem migration, and upskilling for CI/CD and coding best practices.

Sisu Ventures, LLC Saint Louis, MO | Remote

January 2024 – May 2025

Founder, Sole Proprietor

- Build and maintain agentic AI driven algorithmic trading pipelines for US equities.
- Provide consulting and contracting services for data analytics and data science domains, with a focus on AI and business intelligence applications.

SKILLS

AI/ML & Statistical Modeling

Agentic, Search & Recommender Systems, Neural Networks (LLM, CNN, RNN, Transformers), Regression (Linear, Logistic, Random Forest), Classification (xgboost, RandomForest), Clustering (k-means, DBSCAN), Time Series (ARIMA, LSTM), Reinforcement Learning, A/B Testing, Causal Inference, Text Similarity, Sentiment Analysis

Tools & Infrastructure

Gemini, GPT, OpenAI, Vertex AI, Claude, RAG, LangChain/LangGraph, Hugging Face, GCP (BigQuery, BigTable, GKE), AWS (Lambda, EC2), Databricks, Docker, Kubernetes, Git platforms, CI/CD, MLFlow, Jenkins, Harness, REST, gRPC

Programming Languages & Data

Python, Linux, SQL, NoSQL, Pandas, NumPy, TensorFlow, PyTorch, PySpark, Feature Engineering, Data Pipelines, ETL

Management Skills

Strategic Planning, Cross-functional Collaboration, Mentorship, Thought Leadership, Innovation, People Management

EDUCATION

University of Michigan

Master of Applied Data Science, 2021

University of Missouri

Master of Business Administration, 2017

University of Kansas

Bachelor of Arts in Architecture, 2014

For project samples, please scan the QR code, or visit <https://arbergmann.github.io>



Exegy, Inc. Saint Louis, MO | Remote

December 2022 – April 2023

Data Scientist – Quantitative Research

- Designed and researched statistical arbitrage strategies and end-to-end pipelines for intraday and daily trading, specializing in the momentum trading space.
- Wrangled intraday trading datasets of multiple petabytes in size for use in statistical models.
- Refactored and redesigned research tools and pipelines, such as dynamic strategy back testers.
- Refreshed and retrained existing machine learning models for client-facing products.

Edward Jones Saint Louis, MO | Remote

February 2020 – December 2022

Data Scientist

- Led efforts on financial advisor peer clustering analysis to evaluate FA P&L efficiency and determine FA professional objectives.
- Partnered with the dynamic portfolio optimization team to lend strategic and technical support on a tool that leverages trade scheduling and portfolio rebalancing.
- Developed sensitivity analysis, model performance analysis, generate data-driven insights, and perform improvements for a suite of AML models, and manage related dashboards.
- Built comprehensive unit testing on internally created Python libraries.

Data Analyst

- Led annual pricing review initiatives to benchmark company pricing policies and generated scenario analyses for future pricing changes. This effort led to a nearly year-long evaluation of present and future/long-term pricing strategies.
- Created a dynamic practice impact calculator to determine changing industry effects on branches for varying business strategies. The calculator was leveraged for the production of a branch-facing tool to provide significant value to the field. This project utilized analytical acumen as it pertains to database capacity, best practices for calculation logics, and branch practice business acumen.
- Worked with business owners to develop KPIs, and leverage economic models in efforts to research new business strategy proposals.
- Consulted on an advisor development initiative design and analysis for financial advisor groups. This included conducting propensity scoring, control group design, A/B testing, and subsequent proposal efficacy analysis in Python.
- Led the review of a previous focus client measure and its associated ETL pipeline and supervised learning model to ensure continued feature relevance and potential use cases in other future business developments.
- Assisted on a Letter of Authorization / fraud detection initiative that generated a significant monetary influence.
- Assisted with development, scenario modeling, and peer review of a program migration model for potential future business segments, where over \$1T of client funds and approximately 19,000 advisors would be affected by program parameters.

FEFA, LLC Saint Louis, MO

March 2018 – January 2020

Director of Asset Management

- Oversaw operations, portfolio management, compliance procedures, and quantitative analytics for FEFA Asset Management.
- Collaborated with senior management team to take a data-driven approach to develop and adapt sales processes, company policies.
- Oversaw the strategic direction of the asset management division of an early-stage startup.
- Managed and trained a team of 12+ financial advisors and portfolio managers.

Assistant Director of Asset Management, Senior Investment Analyst

- Created process for researching, building, and managing 30+ company portfolios.
- Automated asset management processes with ETL pipelines, including account information audits, form submissions, portfolio tracking and management.
- Managed and trained a team of 9+ financial advisors.