

# Jared Brooks, PhD

brooksjaredc@gmail.com | (206) 313-1788 | Denver, CO | [Portfolio link](#)

---

## WORK EXPERIENCE

---

### Abodemine - Property intelligence evolved

Nov. 2025 – Present

*Staff Data Scientist*

*Denver, CO*

- Designed and implemented a scalable **entity resolution system** for real estate transaction data (loans, assignments, releases, pre-foreclosures), enabling accurate linking of fragmented records across disparate data sources and significantly improving dataset integrity for downstream analytics
- Architected an intelligent **column matching system** that maps ambiguous client-uploaded loan tape fields to a canonical dataset of 1,000+ attributes, combining LLM-based metadata enrichment, semantic similarity (bi-encoders / cross-encoders), and XGBoost classification to automate schema alignment
- Built a **human-in-the-loop feedback pipeline** capturing client corrections to continuously retrain and improve matching models, increasing system accuracy and adaptability over time
- Developed robust **model monitoring and performance tracking infrastructure**, ensuring reliability, drift detection, and maintainability across production ML systems

### Prove - A leading digital identity and Authentication Solutions provider

Jan. 2021 – Nov. 2025

*Senior Data Scientist | June 2024 – Present*

*Denver, CO*

- Architected and deployed International TrustScore **ML model** from concept to production, establishing a new **model microservice** framework that accelerated deployment cycles by 200% and expanded product capabilities globally
- Overhauled legacy Assurance Level (AL) verification system by integrating **ML enhancements** that increased AL=3 **accuracy to 99%**, directly strengthening the company's flagship Verified Users product
- Led software engineering advancement initiatives, including developing the team's core **Python repository** with pytest and **GitLab CICD** pipelines that reduced scripting overhead by 70%, and collaborating with Platform Engineering to implement LazerDome, a centralized **AWS** environment that streamlined secure access and enhanced team collaboration

*Data Scientist | October 2021 – June 2024*

*Denver, CO*

- Designed and built the Assurance Level identity verification system from concept to production, creating a session-based transaction framework that achieved **90% accuracy** at **20% population coverage**, meeting critical product requirements
- Established comprehensive **model governance** protocols for **tier 1 banking** clients, ensuring regulatory compliance for identity verification systems while maintaining technical documentation and validation frameworks required by financial institutions

## EDUCATION

---

### UC Santa Barbara

*PhD and Masters Degree in Theoretical Physics*

Sept, 2017

*Santa Barbara, CA*

### University of Southern California

*BSc in Physics, Minor in Mathematics*

May, 2011

*Los Angeles, CA*

## SKILLS, TECHNOLOGIES, & INTERESTS

---

- **Skills:** Machine Learning; Data Analysis; Python; SQL; Model Governance; APIs; Mentorship; Statistics; R&D Collaboration; Fraud Detection; Feature Engineering
- **Technologies:** Git; AWS; Sagemaker; Looker
- **Interests:** Musical Performance; Weightlifting; Backpacking; Archery; Cooking