



**PHONE:** (206) 555-0147

**ADDRESS:** Seattle, WA

**WEBSITE:** <https://linkedin.com/in/thaddeusblackwood>

**EMAIL:** [t.blackwood@email.com](mailto:t.blackwood@email.com)

## TECHNICAL SKILLS

**Programming Languages:** Python (NumPy, Pandas, Scikit-learn, Matplotlib), R (dplyr, ggplot2, caret), SQL (PostgreSQL, MySQL), Scala

**Machine Learning:** Random Forests, XGBoost, Neural Networks (TensorFlow, PyTorch), Support Vector Machines, Time Series Analysis, Natural Language Processing, Computer Vision

**Data Engineering:** Apache Spark, Apache Airflow, AWS (S3, EC2, SageMaker, Redshift), Docker, Kubernetes, Git

**Visualization & BI:** Tableau, Power BI, Plotly, Seaborn, D3.js

**Statistical Analysis:** Hypothesis Testing, A/B Testing, Bayesian Methods, Survival Analysis, Multivariate Statistics, Experimental Design

# Thaddeus Blackwood

## Data Scientist

- Data Scientist with 3+ years of experience developing machine learning models and statistical analyses to drive business decisions across e-commerce and fintech industries
- Proven track record of delivering measurable impact through predictive modeling, reducing customer churn by 28% and improving fraud detection accuracy by 15%
- Expert in Python, R, and SQL with deep experience in TensorFlow, scikit-learn, and cloud-based ML platforms including AWS SageMaker

## WORK EXPERIENCE

### Meridian Financial Technologies

March 2022 - Present

#### Data Scientist

- Developed ensemble fraud detection model using XGBoost and neural networks, processing 50K+ daily transactions with 96% precision and 91% recall, preventing \$3.2M in fraudulent losses annually
- Built customer lifetime value prediction system using survival analysis and gradient boosting, enabling targeted marketing campaigns that increased CLV by 34% for high-value segments
- Implemented real-time A/B testing framework using Bayesian statistics, supporting 25+ concurrent experiments and improving conversion rates by 18% across mobile and web platforms
- Created automated reporting pipeline in Apache Airflow, reducing manual reporting time from 12 hours to 45 minutes weekly and ensuring 99.5% data accuracy
- Collaborated with product and engineering teams to deploy 8 ML models to production using Docker and Kubernetes, serving 2M+ users with sub-200ms latency

### Cascade E-commerce Solutions

June 2021 - February 2022

#### Junior Data Analyst

- Analyzed customer behavior patterns using cohort analysis and RFM segmentation, identifying 5 distinct customer personas that informed \$2.1M marketing budget allocation
- Developed demand forecasting model using ARIMA and seasonal decomposition, reducing inventory costs by 22% and improving stock availability to 94%
- Built interactive Tableau dashboards tracking 20+ KPIs for C-suite executives, enabling data-driven decisions that increased quarterly revenue by 15%
- Conducted statistical significance testing for 15+ marketing campaigns, optimizing ad spend efficiency and improving ROAS from 3.2x to 4.7x

### University of Washington - Applied Statistics Lab

September 2020 - May 2021

#### Research Assistant

- Implemented deep learning models for time series anomaly detection in IoT sensor data, achieving 93% accuracy in identifying equipment failures 48 hours before occurrence
- Processed and cleaned 10TB+ of sensor data using PySpark, developing ETL pipelines that reduced data processing time by 67%
- Co-authored research paper on ensemble methods for multivariate time series forecasting, presented at International Conference on Machine Learning Applications

## EDUCATION

### University of Washington

2021

#### Master of Science in Data Science

**GPA:** 3.8/4.0

**Relevant Coursework:** Deep Learning (A+), Statistical Machine Learning, Big Data Systems, Natural Language Processing, Bayesian Statistics

**Capstone Project:** Developed convolutional neural network for medical image classification achieving 94.2% accuracy on skin cancer detection, collaborating with UW Medical Center dermatology department

### University of California, Berkeley

2019

#### Bachelor of Science in Statistics

**GPA:** 3.7/4.0

**Relevant Coursework:** Mathematical Statistics, Regression Analysis, Experimental Design, Probability Theory, Statistical Computing with R

**Honors:** Dean's List (2018, 2019), Outstanding Senior Project Award for "Monte Carlo Methods in Portfolio Optimization"

## KEY PROJECTS

### Real-Time Recommendation Engine

<https://github.com/tblackwood>

- Built hybrid collaborative filtering system using matrix factorization and deep learning, increasing user engagement by 41% and session duration by 23 minutes
- Deployed model using AWS Lambda and DynamoDB, serving 100K+ recommendations daily with 150ms average response time
- **Technologies:** Python, TensorFlow, AWS Lambda, DynamoDB, Apache Kafka

### Customer Churn Prediction System

<https://github.com/tblackwood>

- Developed ensemble model combining logistic regression, random forests, and gradient boosting to predict customer churn with 89% accuracy
- Implemented SHAP values for model interpretability, enabling business stakeholders to understand key churn drivers and develop retention strategies
- **Technologies:** Python, XGBoost, SHAP, PostgreSQL, Tableau

## CERTIFICATIONS

### AWS Certified Machine Learning - Specialty

2023

Amazon Web Services

### TensorFlow Developer Certificate

2022

Google

### Google Cloud Professional Data Engineer

2022

Google Cloud

## AWARDS AND PUBLICATIONS

### Kaggle Home Credit Default Risk Competition

Top 12% (387/2,935 teams)

Developed ensemble model combining LightGBM and neural networks with advanced feature engineering

### Best Graduate Research Poster

2021

UW Data Science Symposium

Presented novel approach to handling class imbalance in time series classification

### Technical Publication

2021

International Conference on Machine Learning Applications

"Ensemble Methods for IoT Anomaly Detection"

### Open Source Contribution

GitHub

PyTorch implementation of "Attention-based Time Series Forecasting" (245+ stars)