

# DeVon Rasch

*Data Engineer & AI/ML Specialist*

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## PROFESSIONAL SUMMARY

Senior Data Engineer with 7+ years of experience architecting scalable data solutions and ML systems for Fortune 500 companies. Proven track record of delivering high-impact projects that combine data engineering, machine learning, and full-stack development. Reduced infrastructure costs by \$700K at Sciply, scaled Apple's anomaly detection system to 200+ pipelines, and pioneered innovative solutions adopted by Databricks. Expertise in building automated pipelines, optimizing big data workflows, and developing AI-driven applications. Known for transforming complex business requirements into efficient, production-ready systems while maintaining sub-5-minute SLAs.

## PROFESSIONAL EXPERIENCE

**Data Engineer 3** | Sciply (*January 2023 - Present*)

- Architected and managed Databricks infrastructure for pipeline onboarding, implementing innovative solutions for automated testing deployment to EC2 containers
- Developed a glaciering data system resulting in \$20,000 monthly cost savings through intelligent data storage management
- Created an efficient data retrieval system that was later adopted by Databricks as a platform feature
- Generated over \$700,000 in storage cost savings through optimization initiatives, creating additional budget capacity for future projects

**Machine Learning Engineer (Contract)** | Apple (*April 2022 - September 2024*)

- Scaled anomaly detection system from 10 to 200 pipelines while reducing SLA times from 20 to 5 minutes
- Developed self-serving API enabling automated pipeline onboarding for customized anomaly detection
- Implemented optimized cache storage and ensemble machine learning models to enhance detection speed
- Built data classification system for unsupervised machine learning models, preventing DDOS attacks on Apple TV and fraudulent Apple Pay transactions

**Data Engineer** | Saatva (*June 2021 - July 2022*)

- Engineered ETL pipelines integrating multiple advertising platforms (Facebook, Twitter, Snapchat) into AWS Athena
- Developed automated data ingestion solutions using Python and PySpark for marketing analytics
- Implemented hourly data refresh cycles using AWS Glue scripts for real-time marketing insights

**Full Stack Engineer (Contract)** | AT&T (*January 2021 - April 2022*)

- Led development of Northstar, a full-stack application consolidating multiple data sources into a single source of truth
- Architected data validation system to identify mismatched types and synchronization issues
- Designed and implemented ETL processes based on user-defined forms and requirements

**Data Scientist** | Degree Analytics (*October 2019 - December 2020*)

- Analyzed student success patterns using IoT sensor data and demographic information to identify key success factors
- Managed AWS infrastructure including S3, SFTP, and IAM controls for university data onboarding
- Created data visualizations using AWS QuickSight to communicate insights to university stakeholders

**Associate Technologist** | Merck (*January 2019 - October 2019*)

- Developed MVP projects including an innovative LLM-powered chatbot for SharePoint integration
- Led international RPA initiatives to automate business processes
- Collaborated with cross-functional teams to deliver rapid prototypes for innovation projects

**Robotic Process Automation Contractor** | Merck (*October 2018 - January 2019*)

- Automated SAP discount verification process resulting in \$250,000+ savings within first 6 weeks
- Implemented OCR-based automation solutions for international teams
- Streamlined processes reducing workload for up to 3-person teams

**Data Scientist Intern** | Degree Analytics (*May 2018 - August 2018*)

- Created facility usage heat map feature using PySpark and Seaborn for visualizing campus activity

- Conducted machine learning research to address university-specific feature requests

#### **Data Analysis Intern | Cloud 9 Technologies (March 2017 - December 2017)**

- Managed emergency communication devices for officer-patient interactions
- Conducted data analysis on app usage and survey data using MongoDB
- Created data visualizations to track user engagement and testing metrics

## **TECHNICAL SKILLS**

### **Programming Languages & Frameworks**

- Python (Advanced) - PySpark, NumPy, Pandas, Seaborn, ML Libraries
- JavaScript/TypeScript - React.js
- SQL (Advanced)

### **Cloud & Infrastructure**

- AWS: EC2, S3, Athena, QuickSight, IAM, Glue
- Azure: Container Registry
- Kubernetes
- Docker
- Databricks

### **Data Engineering & Analytics**

- ETL Pipeline Development
- Machine Learning Engineering
- Anomaly Detection Systems
- Real-time Data Processing
- Data Warehouse Architecture
- Delta Live Tables
- Snowflake

### **Big Data Technologies**

- MongoDB
- Apache Spark
- Data Lake Architecture
- SFTP/Data Integration

### **DevOps & Automation**

- Continuous Deployment
- UiPath

- Robotic Process Automation (RPA)
- CI/CD Pipelines

## Visualization & Reporting

- Tableau
- AWS QuickSight
- Data Storytelling
- Business Intelligence

# PERSONAL PROJECTS

## **Custom RAG-Enhanced Language Model** *(November 2024) LLMs, Natural Language Processing, PDF Processing*

- Developed system enabling users to create personalized LLMs using their own PDF documentation
- Implemented RAG (Retrieval-Augmented Generation) architecture for processing 1000+ page documents
- Created efficient document processing pipeline for text extraction and embedding
- Built vector database integration for semantic search and context retrieval
- Engineered solution for on-premises deployment and data privacy

## **Raythe.tech - Automotive Maintenance Platform** *(October 2024) Full Stack Development, AI Integration, E-commerce*

- Architected comprehensive web application for DIY car maintenance and repair
- Developed AI-powered chatbot providing step-by-step repair instructions
- Integrated parts database with intelligent matching system for vehicle specifications
- Created professional service locator with expertise-based matching
- Built user-friendly interface optimized for both desktop and mobile devices

# EDUCATION

## **Master of Science in Data Science** | *Expected December 2024* Eastern University (Online)

- Focused on advanced machine learning algorithms and statistical analysis
- Completing while maintaining full-time senior engineering role
- Deep Learning Techniques including Neural Networks with TensorFlow & Pytorch

## **Bachelor of Science in Mathematics** | *2019* Huston-Tillotson University, Austin, Texas

- Developed strong foundation in quantitative analysis and problem-solving
- Applied mathematical concepts to early data science projects