

Bryant McArthur

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Experience

Machine Learning Engineer

Abstract

- Oversee Agentic AI Architecture for Chat Interface Employing RAG & DAG from Vector DB
- Manage Data Pipeline and Cloud Infrastructure and Assist in API and Frontend Development

September 2025 - Present
New York, New York (Remote)

CoFounder | CTO

Family Saga

- Sole Product Engineer for FullStack Webpage and Family Tree Chart Generation

June 2025 - Present
South Jordan, Utah

Head of Machine Learning

Addavox

- Responsible for All ML and AI Models from Model Architecture Design, Data Collection & Processing, and Training
- Implemented Model APIs into the Product Pipeline and Oversee Cloud Infrastructure for AI Workers

May 2022 - August 2025
Lehi, Utah

Machine Learning Engineer

Ditto

- Designed Cross-Lingual Prosody Mapping Text-To-Speech Model with Speaker Voice Cloning

June 2024 - August 2024
Orem, Utah

Lead Consultant | Founding Partner | CFO

Parsha Works

- Deployed and Sold Full-Stack Event Ticketing Software MVP in Three Months
- Built Software for Automated, Customized, and Timely Real Estate Leads

January 2022 - October 2024
Provo, Utah

Education

Master of Computer Science

Texas A&M University

- GPA: 3.86/4.00 Machine Learning Engineering Deep Learning, AI & Reinforcement Learning
- Data Mining and Analysis Algorithms & Optimization Distributed Systems & Cloud Computing

December 2024
College Station, Texas

BS, Applied & Computational Mathematics Emphasis (ACME)

Brigham Young University

- GPA: 3.93/4.00 Concentration: Linguistics Machine Translation & NLP

April 2023
Provo, Utah

Publications and Projects

IEEE/CVF WACV 2025 Workshop: AI for Multimedia Forensics and Disinformation Detection

February 28, 2025

- "HFMF: Hierarchical Fusion Meets Multi-Stream Models for Deepfake Detection"

Low Rank Adaptation

- Finetuned Stable Diffusion Model to Generate Custom Pokemon Using Low-Rank Adaptation (LoRA)

December 2023

Wildfire Predictions

- Analyzed Wildfire Data Using ARIMA, HMM, Kalman Filter, and Prophet Models
- Accurately Predicted When and Where the Next Wildfires will Strike on a Regional Basis

April 2023

Multilingual Neural Machine Translation Model

March 2022

- Cleaned and Multi-way Aligned Data to Train a Complete MNMT System for Polish, Spanish, Czech, & English
- Analyzed Bleu Scores with Corresponding Bilingual Models on Untrained Language Pairs

Speech to Speech Translation Model

February 2022

- Created Pipeline using Automatic Speech Recognition, Text to Text Machine Translation and Foreign Language Speech Synthesizer Models to Recognize Audio input and Output Translated Foreign Speech

Skills

- | | | |
|-----------------------------|----------------------------|---|
| • AI, ML, DL | Python, R, Ruby, C++, html | Pytorch, Tensorflow, Cuda |
| • AWS, Google Cloud Console | Statistics | Linear and Nonlinear Analysis |
| • Data Structures | Multivariable Calculus | Gradient Descent & Optimization Methods |
| • Numerical Linear Algebra | ODEs, PDEs | Fourier Analysis, Kalman Filter |

Volunteer Work

Club Officer

Texas A&M Men's Soccer

January 2024 - April 2025

College Station, Texas

- As Elected DK Coordinator: Manage Alumni Fundraising Events, Allocate Financials, Play and Compete with Team

Full-Time Volunteer Representative & Assistant to the President

January 2018 - February 2020

The Church of Jesus Christ of Latter-day Saints

Warsaw, Poland

- Analyzed Statistics and Led Weekly Trainings to Achieve Group Improvement Goals for Entire Mission