Bryant McArthur

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Summary

Machine Learning Engineer with over 3 years of senior experience delivering production-grade AI solutions. Expertise includes designing and training ML and AI models, integrating Agentic AI and RAG for personalized experiences and automated systems. Proven track record in developing efficient data pipelines and scalable cloud deployments. Proficient in containerization, cloud infrastructure and modern LLMs to drive innovative product enhancements.

Experience

Head of Machine Learning   **May 2022 – Present**
Addavox   *Lehi, Utah*
- Responsible for All ML and AI Models from Model Architecture Design, Data Collection & Processing, and Training
- Implement Model APIs into the Product Pipeline and Oversee Cloud Infrastructure for AI Workers

Machine Learning Engineer   **June 2024 – August 2024**
Ditto   *Orem, Utah*
- Designed and Built Cross-Lingual Prosody Mapping Text-To-Speech Model with Speaker Voice Cloning

Lead Consultant | Founding Partner | CFO   **January 2022 – October 2024**
Parsha Works   *Provo, Utah*
- Deployed and Sold Full-Stack Event Ticketing Software MVP in Three Months
- Built Software for Automated, Customized, and Timely Real Estate Leads

Sales Rep Team Lead   **April 2020 – September 2021**
Moxie Services   *Dallas, Texas*
- Led the Company Nationwide Consistently in Individual Sales Door-to-Door on a Day-to-Day Basis
- Generated and Responsible for over $1 Million in Revenue for Moxie

Education

Master of Computer Science   **December 2024**
Texas A&M University   *College Station, Texas*

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

BS, Applied & Computational Mathematics Emphasis (ACME)   **April 2023**
Brigham Young University   *Provo, Utah*

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

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   **December 2023**
- Finetuned Stable Diffusion Model to Generate Custom Pokemon Using Low-Rank Adaptation (LoRA)

Wildfire Predictions   **April 2023**
- Predicted Regional Wildfires by Forecasting Wildfire Data Using ARIMA, HMM, Kalman Filter, and Prophet Models

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, Javascript	Pytorch, Tensorflow, Cuda
AWS, Google Cloud Console	LLMs, Agentic AI, RAG	Linear and Nonlinear Analysis
Data Structures	Statistics	Gradient Descent & Optimization Methods
Numerical Linear Algebra	ODEs, PDEs	Fourier Analysis, Kalman Filter

Volunteer Work

Club Officer   **January 2024 – April 2025**
Texas A&M Men's Soccer   *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