

Bryant McArthur

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Education

Master of Computer Science

December 2024

Texas A&M University

College Station, Texas

- GPA: 3.67/4.00
- Data Mining and Analysis
- Reinforcement Learning
- GRE: 324
- Artificial Intelligence
- Algorithms & Optimization
- Machine Learning Engineering
- Distributed Systems & Cloud Computing
- Software Engineering

BS, Applied & Computational Mathematics Emphasis (ACME)

April 2023

Brigham Young University

Provo, Utah

- GPA: 3.93/4.00
- Full Academic Scholarship
- Bayesian Statistics
- ACT: 35
- Machine Translation
- Time Series Forecasting
- Concentration: Linguistics
- Natural Language Processing
- Mathematical Theory

Experience

Head of Machine Learning

May 2022 – Present

Addavox

Lehi, Utah

- Developed, Customized and Trained Model for Voice Synthesis Retaining Vocal Qualities of Encoded Speech
- Engineered “Lip Sync” Model for Synchronizing Vocal Audio to Visual Mouth Movements in High-Dim Space

Lead Consultant | Founding Partner

January 2022 – Present

Parsha Works

Provo, Utah

- Deployed Full-Stack Event Ticketing Software MVP for \$50,000 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

Skills

- Python, R, Ruby, C++, html
- Data Structures
- Statistics
- Numerical Linear Algebra
- Pytorch, Tensorflow, Cuda
- Unix Shell
- Multivariable Calculus
- ODEs, PDEs
- Gradient Descent
- Linear and Nonlinear Analysis
- Singular Value Decomposition
- Fourier Analysis, Kalman Filter

Relevant Projects

Low Rank Adaptation

December 2023

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

Wildfire Predictions

April 2023

- 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

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

Volunteer Work

Club Officer

January 2024 – President

Texas A&M Men's Soccer

College Station, Texas

- Elected DK Coordinator after Leading the B-Team my First Season and Advancing to A-Team for Regionals

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