Bryant McArthur

3707 Colorado Canyon Ct. College Station, TX 77845
bryant0918@gmail.com – (385) 500-7272
www.github.com/bryant0918 – *www.bryantmcarthur.com* – *www.linkedin.com/in/bryant-mcarthur*

Education

Master of Computer Science   **December 2024**
Texas A&M University   *College Station, Texas*
- GPA: 3.86/4.00 | GRE: 324 | Machine Learning Engineering
- Data Mining and Analysis | Artificial Intelligence | Distributed Systems & Cloud Computing
- Reinforcement Learning | Algorithms & Optimization | Software Engineering

BS, Applied & Computational Mathematics Emphasis (ACME)   **April 2023**
Brigham Young University   *Provo, Utah*
- GPA: 3.93/4.00 | ACT: 35 | Concentration: Linguistics
- Full Academic Scholarship | Machine Translation | Natural Language Processing
- Bayesian Statistics | Time Series Forecasting | 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 | Pytorch, Tensorflow, Cuda | Gradient Descent
- Data Structures | Unix Shell | Linear and Nonlinear Analysis
- Statistics | Multivariable Calculus | Singular Value Decomposition
- Numerical Linear Algebra | ODEs, PDEs | 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