# **Bryant McArthur**

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## **Education**

#### BS, Applied & Computational Mathematics Emphasis (ACME)

April  $20\overline{23}$ 

Provo, Utah

Brigham Young University

Emphasis: Linguistics

• GPA: 3.95/4.00

Full Academic Scholarship

• Relevant Coursework:

Natural Language Processing Linear and Nonlinear Analysis Computation and Optimization Mathematical Programming Machine Translation Machine Learning Multivariable Calculus

Statistics

### Skills

• Proficient in Python, git, C++, Java, html

• Junior Year Skills:

Gradient Descent Q-Learning Thompson sampling A/B Testing

Fourier Analysis

Data Structures
Unix Shell
Krylov Subspaces

Singular Value Decomposition Numerical Linear Algebra

## **Experience**

#### **Head of Machine Learning**

Addavox

May 2022 - Present

Lehi, Utah

- Developed, Customized and Trained Model for Voice Synthesis Retaining Vocal Qualities of Encoded Speech
- Implemented Speech and Source Separation with WavLM model

#### Sales Rep Team Lead

Moxie Services

**April 2020 - September 2021** 

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
- Directed and Incentivized Team Administratively to Assure Individual and Group Goals were Achieved

#### **Full-Time Volunteer Representative**

January 2018 - February 2020

The Church of Jesus Christ of Latter-day Saints

Supervised and Mentored 60 Volunteers to Encourage More Effective Work

Analyzed Team Statistics and Led Weekly Trainings to Achieve Group Improvement Goals

# **Relevant Projects**

#### **Multilingual Neural Machine Translation Model**

March 2022

Warsaw, Poland

- 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