

# ANDREW ANNESTRAND

aannestrand98@gmail.com • (832) 865-2002 • [aannestrand.com](http://aannestrand.com)

## EDUCATION

<b>The University of Washington</b>	Master of Science, Electrical Engineering Overall GPA: 3.89/4.0	March 2023
<b>The University of Texas at Austin</b>	Bachelor of Science, Electrical Engineering Overall GPA: 3.74/4.0	May 2021
<b>Universidad Católica de Valparaíso</b>	Culture Program in Valparaíso, Chile	May 2018
<b>Relevant Coursework</b>	Machine Learning, Probability & Stochastic Processes, Statistics, Algorithms, Digital Image/Video Processing, Deep Learning, Edge ML/AI	

## PROGRAMMING SKILLS

- **Proficient:** Python, SQL, PyTorch
- **Familiar:** C, C++, JavaScript, R, Java
- **Other Technologies:** Django, Flask, AWS, React, NumPy, Pandas, Scikit-learn

## EXPERIENCE

<b>Amazon</b> – <i>Data Scientist Intern</i> ; Seattle, WA	June – September 2022
<ul style="list-style-type: none"><li>• Developed predictive models (Recurrent Neural Networks) in support of Amazon PXT</li><li>• Integrated models with AWS services for modularized pipeline</li><li>• Wrote efficient SQL queries and Python scripts to handle millions of datapoints</li></ul>	
<b>Quit, Inc.</b> – <i>Co-founder</i>	September 2020 – Jan. 2022
<ul style="list-style-type: none"><li>• Co-founded a startup that builds devices that track e-cigarette usage via Bluetooth connection to smartphone</li><li>• Lead backend development for the application (Django/PostgreSQL), assist in frontend development (React Native)</li><li>• Contributed to product management through alpha testing and product iterations</li></ul>	
<b>ExxonMobil</b> – <i>Machine Learning Engineer Intern</i> ; Remote	May – August 2020
<ul style="list-style-type: none"><li>• Developed a custom Conditional Generative Adversarial Network (cGAN) for daily power demand on a variety of grids</li><li>• Enabled corporate research planning to create accurate power forecasts for a variety of customizable parameters</li></ul>	

## ACADEMIC/PERSONAL PROJECTS

### NFL BetaLine: Positive EV Betting Framework using Deep Learning

- Compiled dataset of historical NFL game results, advanced team metrics, player production grades, and betting history
- Created and trained custom GRU network to predict probabilities of teams winning a game
- Model probabilities used to evaluate prime betting opportunities in noisy market

### MobileNet-v1 Model Compression

- Optimized MobileNet-v1 for Raspberry pi edge device inference using iterative pruning and integer quantization
- Decreased latency by ~91%, power consumption by ~77%, while maintaining a ~71% accuracy on CIFAR-10 dataset

## LEADERSHIP EXPERIENCE AND ACTIVITIES

<b>UT Machine Learning and Data Science Club (MLDS)</b> - <i>VP of Corporate Relations (Fall 2020)</i>	Fall 2018 – Spring 2021
<ul style="list-style-type: none"><li>• Led corporate outreach strategy and planning for large competitions, tech talks, and socials</li><li>• Contributed to weekly machine learning/data science workshops for club members</li><li>• Doubled corporate events since becoming an officer through strategic networking</li></ul>	
<b>Eagle Scout</b>	June 2016 - Present

## HONORS

- University Honors (5 semesters)
- Spring 2017 - Spring 2018, Spring, Fall 2020