

# ANDREW ANNESTRAND

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## 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 Valparaiso, 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
• Developed predictive models (Recurrent Neural Networks) in support of Amazon PXT	
• Integrated models with AWS services for modularized pipeline	
• Wrote efficient SQL queries and Python scripts to handle millions of datapoints	
<b>Quuit, Inc.</b> – <i>Co-founder</i>	September 2020 – Jan. 2022
• Co-founded a startup that builds devices that track e-cigarette usage via Bluetooth connection to smartphone	
• Lead backend development for the application (Django/PostgreSQL), assist in frontend development (React Native)	
• Contributed to product management through alpha testing and product iterations	
<b>ExxonMobil</b> – <i>Machine Learning Engineer Intern</i> ; Remote	May – August 2020
• Developed a custom Conditional Generative Adversarial Network (cGAN) for daily power demand on a variety of grids	
• Enabled corporate research planning to create accurate power forecasts for a variety of customizable parameters	

## 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
• Led corporate outreach strategy and planning for large competitions, tech talks, and socials	
• Contributed to weekly machine learning/data science workshops for club members	
• Doubled corporate events since becoming an officer through strategic networking	

## **Eagle Scout**

June 2016 - Present

## HONORS

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