

# CLIVE UNGER

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*Seeking internship for Summer 2020 before starting second year of BSEE/MSE Integrated Program*

## EDUCATION

**The University of Texas at Austin** M.S., B.S., Electrical and Computer Engineering **May 2021**  
Minor: Business Foundations  
**GPA: 3.76/4.00**

**Coursework** Data Science, Digital Signal Processing, Distributed Systems, Algorithms, Data Structures  
**Skills** Python, Java, Scala, Apache Spark, Apache Kafka, Perl, C/C++, SQL

## EXPERIENCE

**Capital One** – *Software Engineering Intern, Machine Learning; Mclean, VA* Summer 2019

- Developed a real-time data pipeline using Spark to produce nodes and edges from AWS data which fed into a community detection algorithm to identify unauthorized production changes
- Updated AWS CloudTrail parser to utilize a new streaming architecture built around Apache Kafka
- Collaborated with Streaming Data team to fix data serialization issues when writing to Elasticsearch
- Simplified pipeline by consolidating multiple Spark jobs into one, alleviating need for AWS resources
- Participated in Agile methodologies, including standup and two-week sprints, to receive constant feedback

**NXP Semiconductors** – *Software Engineering Intern; Austin, TX* Summer 2018

- Developed data analysis tool in Perl to extract and organize metric data from automation logs
- Improved data collection accuracy by 20% by identifying critical bugs in the automation flow
- Automated the generation of reports for performance analysis and status updates of batch jobs
- Presented project results to panel of upper management and suggested future improvements

## PROJECTS

**Cap-O, GroupMe Payments Bot** – *Capital One Intern Hackathon* Summer 2019

- Built a text bot with Python and Flask to handle payments within the GroupMe app analogous to Venmo
- Added functionality to check wait-time in a Capital One Café or Bank using pre-trained neural network to identify number of people in a room

**Quora Question Sincerity Classification** – *Data Science Class Project* Fall 2018

- Using neural networks, created model to identify and flag insincere questions from Quora
- Increased word embedding coverage from 20% to 90% through text preprocessing: cleaned contractions and punctuation, dropped non-printable characters and stop words, corrected common misspellings
- Analyzed logistic regression weights to identify which words make a question “insincere”

**Kaggle: Class Competition** – *Data Science Lab* Fall 2018

- Applied feature engineering methods such as normalization, dropping noisy columns, and oversampling
- Built a stacked classifier from multiple models such as Random Forest, Logistic Regression and XGBoost
- Placed 6<sup>th</sup> overall with a ROCAUC score of 0.91761 and received highest grade based on report

**/r/HipHopHeads Twitter Bot** – *Personal Project* June 2018

- Built a bot using Python to query reddit.com/r/hiphopheads and tweet rising new posts
- Deployed project as an AWS Lambda function to automatically run every 5 minutes

## LEADERSHIP & HONORS

**Texas Iron Spikes** – *External Vice President, Administrative Officer* Fall 2017 – Present

- Streamlined merchandizing process for organization; saved 5% of annual budget
- Assisted in raising over \$35,000 for the Special Olympics of Texas through multiple service events

**Unrestricted Endowed Presidential Scholarship** – Merit-based award nominated by faculty Fall 2018  
**Eta Kappa Nu (HKN)** – Electrical Engineering Honor Society Spring 2018