Chase Brown

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EDUCATION

• Texas A&M University

College Station, TX

Bachelor of Science in Statistics; Minor in Mathematics; Minor in Computer Science

Aug. 2016 - May. 2021

• AWS Certifications

Online

Solutions Architect Associate, Developer Associate, & Machine Learning Speciality

Jan. 2021 - Feb. 2024

EXPERIENCE

• A&M Capstone Project

College Station, TX

Group Leader

January 2021 - May 2021

- Statistical Analysis: Tested and analyzed the relationship between the price of 2967 stocks and roughly 600GB of Twitter data using: Pearson/Spearman correlation testing, Scikit, ROC curves, ridge regression, deep learning, XGBoost, lasso regression, and time series analysis
- o Big Data/Large Datasets: Preprocessed and analyzed 600 GB of raw tweet firehose data and 7 months of daily stock price data from 3000 different stocks without any specialized servers or processing power which necessitated efficient data management
- Natural Language Processing/Sentiment Analysis: Reduced Twitter data to a quantifiable dataset using Flair's sentiment analysis classifier and other NLP techniques like language detection
- Data Exploration: Started with 600 GB of raw tweet firehose data and 7 months of daily stock price data from 3000 different stocks then cleaned and reduced the dataset to be usable for my models and analysis
- o Model Design/Prediction: Used ROC Curves, Ridge Regression, Deep Learning, XGBoost, Lasso Regression, and time series analysis to build models to predict future stock price movements based on Twitter sentiment
- Time Series Analysis: Used multiple time series analysis techniques to predict future stock price movements based on Twitter sentiment
- Efficient mySQL: Dealt with 600GB of Twitter data using a MySQL server which required efficient database design, MySQL queries, and parallel database access
- o Data Visualization: Visualized data using Plotly, Matphotlib, trend plotting, variable visualization, correlation plotting, and correlation/confusion matrices
- Raw Data: Started with 600GM of raw data that included many different languages and had to use techniques such as data preprocessing, language classification, and dataset balance testing to clean and understand the data
- o Parallel Processing: The amount of data involved and the timeline of the project required the extra efficiency of parallel processing to meet deadlines
- o Financial Data: Worked with Yahoo Finance API and CmcScraper to perform time series analysis on months of financial data along with textual information

• The REACH Project

College Station, TX

Chief Operating Officer

March 2020 - January 2021

- o Social Media Fundraising: Within weeks of the Covid-19 shutdown, we organized a Covid-19 relief social media strategy that raised \$30k in the first month and a little under \$100k that calendar year.
- Remote Team: Everything I did at REACH organizationally was fully remote. I was in charge of handling I.T. for the entire organization and picking the software we used to solve issues stemming from having a remote setup. I also sent bulk emails/texts to people signed up for our weekly meal distributions.
- Management/Leadership: I managed multiple individuals along with 5+ teams while they each worked on separate unique tasks to help the organization's mission.
- Creative Problem Solving: Due to a rapid influx of donations, we needed help running an organization outgrowing its workforce. That summer, internships across the country were being canceled, which gave us an opportunity to work with A&M to develop an online internship program. We had 7 interns that summer and 21 in the fall making our work possible that year.
- Texting/Email Automation: Wrote Python scripts to use Twilio and AWS SES to automate our texting/email notification system saving volunteers hours of work each week
- Technical Support: Worked with community members who had little technical background to solve their technological issues

- Organizational Software Implementation: Created/managed organizational accounts with Asana, AWS, OnePassword, cloud storage (Google Drive and S3), web hosting, and Slack
- Cyber Security Management: Was in charge of managing the security of organization password management, cloud storage, web hosting, data security, proper allocation of resourses
- Application Design/Implementation: Helped design and implement coupon delivery applications at multiple stages of meal distributions that shared coupons for over 20k meals to 300 families
- Database Management: Created databases to securely and efficiently store important user data that was used to automate and assist with projects and campaigns

• REACH Student Organization

College Station, TX

President/Founder

July 2020 - December 2020

- Launching New Programs: I lead the creation, launch, and leadership transition of a new sustainable and
 effective REACH Student Organization. This organization still delivers high-impact, effective programs that
 strengthen the fabric of the community.
- Implement/Improve Existing Programs: REACH held its yearly health fair before the REACH Student Organization took that project over and repurposed it to be remote and still meet the satisfaction, quality, and performance standards held by REACH.
- Successful Transitions/Sustainability: The work done through the REACH Student Organization can only be truly sustainable if it continues to recruit and transfer leadership successfully year after year. To ensure this happens, I designed a system for recruitment and leadership transitions and wrote it into the organizations constitution.
- Time Management: Ran the REACH Student Organization while I was the COO of the REACH Organization itself. Making sure that both of these organizations delivered high-impact, effective programs that engaged university and community partners to REACH's standards took successful time management. I did both of these while being a full time student as well.

• AkinMears L.L.P.

Playa Del Carmen, Mexico

Project Manager

July 2019 - January 2020

- International Management: Found and leased two properties, hired managers, communicated guidelines, set up office phone systems, organized payroll/banking, and worked with a local lawyer. This office is currently operating and profitable.
- Self-Directed/Independent Work: Was independent in Mexico and reported back to my managers in the U.S. remotely. It was solely up to me to meet guidelines and goals on a schedule agreed upon at the beginning, which I did successfully.
- Office IT Setup: Was solely in charge of IT setup and onboarding for this office including phones, internet, and individuals computers
- Technical Onboarding: Worked with non-technical people to set up computers and tools they need to acomplish their tasks

• Texas A&M Marketing and Communications Department

College Station, TX

Student Technician

July 2018 and July 2019

- Group Representation: My managers needed me to represent the student populations interests when pitching ideas for new applications A&M could add to it's student app.
- **Digital Marketing**: I worked on multiple digital marketing campaigns with SEO, SEM/PPC, and landing page design/creation. I also have a background in computer automation, so I also have the abilities to scale these processes.
- Strategy Meetings/Proposals: When I wanted to add a new application, I had to write and present proposals to my managers. I then answered questions and concerns about that proposal.
- Databases: Regularly created, filled, maintained, read and displayed databases with MySQL both manually and with automated scripts on production servers.
- Python Scripts: Majority of my work was done in python. I would read and serve API/database data for our applications both on app and web. I would also quite regularly script the work that I needed to get done. Good practice and rarely slower.
- Web Development & Accessibility: Designed multiple web applications. Generally these were meant to display some sort of data, such as a page to display how full parking garages were so students could plan ahead.
- Code Deployment: Worked with both production and development servers/testing apps. Used Github and Gitlab to collaborate and backup code.

• VITA / A&M

Research Assistant

College Station, TX

May 2018 - July 2018

- Data Pre-Processing / Model Testing: Helped with testing and image enhancement for an object detection program for drones. My website has the paper I am recognized in attached.
- Linux Server: The tests we were running took a considerable amount of computer power, so we logged into the linux super computer at A&M. This gave me experience with shared systems and applying for server credits.
- Computer Vision: Used and improved on cutting edge deep-learning computer vision models to detect objects in drone footage

• LawAutomated

Houston, TX / Remote August 2017 - August 2018

Machine Learning Contractor

- Classification/Prediction: Developed software to automate legal paperwork. Used TensorFlow and a deep-learning model to categorize documents. My website has a Jupyter Notebook with some of what I used.
- Natural Language Processing: Preprocessed data using NLTK and set up NLP bag of words model for classifier.