# Aditya Pethe

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## Education

**Texas A&M University** B.S in Computer Science, B.S in Applied Mathematics Aug 2018 – May 2022
Brockman Scholar – US Presidential Scholarship Candidate – Grace Hopper Scholar GPA: 3.8

## Skills

**Languages:** Python, SQL, C++, JavaScript, HTML, CSS, R, Java
**Frameworks/Technologies**: Pandas, Numpy, Seaborn, Sklearn, Node.js, Pytorch, Selenium, Beautifulsoup, Git, Heroku

## Experience

**Amazon** – Software Engineering Intern Sep 2022 – Dec 2022
**Instagram** – Data Science Intern Jun 2022 – Sep 2022

- Created privacy compliant proxy labels to train story ranking models using daiquery (**SQL**) and bento (python)
- Boosted reciprocal conversation proxies F1 scores +**13%** for story reshares, and +**50%** for story replies
- Resulted in several QE (quick experiments), analogous offline performance resulted in **+0.13% communications DAU**

**Alexa Prize Challenge** – Student Researcher / Developer May 2021 – Apr 2022

- **One of ten** teams Amazon selected to compete in building a conversational taskbot for the **Alexa Prize Grand Challenge**
- Boosted ratings **+10%** via smart user recommendations, implemented step navigation and transcript generation
- **Coauthored** technical paper "Howdy Y'all: An Alexa TaskBot" with an emphasis in conversationalized instructions

**Texas A&M Datathon** – President Nov 2019 – Dec 2021

- **Managed team of 20** and organized Texas A&M's flagship data science hackathon with over **300** participants
- **Raised $55,000** from sponsors and hosted the first hackathon ever at the Hall of Champions in **Kyle Field**

**SmugMug & Flicker Inc** – Data Science Intern Jun 2021 – Aug 2021

- Lead independent project to predict subscribers from free trial user data, **presented** at company-wide all hands
- Used various techniques **(PCA, TSNE, NN, XGBOOST)** to improve model recall **+20%**
- Created a **feature importance dashboard** that led to direct product experimentation and testing

**Deephaven Data Labs** – Data Science Intern May 2020 – Aug 2020

- Used **Sklearn**, **Fbprophet,** and **Deephaven** to build seasonality, momentum trading, and adverse selection models
- Published 3 white papers with Deephaven that helped increase user engagement over **35%**

## Projects

**GossipProtocol** at Texas A&M University Jan 2022 – May 2022

- Collaborated to build a **full stack,** cryptocurrency news aggregation application to curate news based on wallet holdings
- Built backend in **node.js,** and designed relevance algorithm for twitter, telegram, and reddit API's, deployed with **Heroku**
- Selected as the **best senior capstone** in our class by industry panel experts, and received **5 solana** in winnings

**LyRec** at Texas A&M University Apr 2021 – May 2021

- Implemented lyric-based song recommender system using **matrix factorization**
- Using **Bag of Words, BERT,** and **TF-IDF** to compute pairwise similarity on 100,000 song dataset

**Helping Eye** at TAMUhack Jan 2020

- **Won 1st Place** for best use of Azure from Microsoft for creating a chatbot to assist the visually impaired navigate the web
- Developed in team using React.JS in chrome extension, NLP and ML with Azure's LUIS API, **Node.js** for bot execution

**Auto Flow** at HackPrinceton Nov 2019

- **Won 1st Place for best use of API's** from **Stdlib** for creating service that automates instructions with various APIs
- Used natural language processing in **NLTK** to parse instruction text into concrete API calls

**Full House** at HackTX Nov 2019

- **Won 1st Place** for PwC hack for social good challenge, created a web app to assist homeless with inventory management
- Developed in team using React.JS, Express.JS, and **MongoDB** and hosted on Azure to create a responsive, full stack app