

# MAYANK DARUKA

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## EDUCATION

### The University of Texas at Austin

May 2023

Bachelor of Science in Computer Science and Mathematics

GPA: 3.96

Relevant Coursework: Data Structures (Object Oriented Programming), Computer Architecture, Operating Systems, Algorithms, Competitive Programming, Computer Networks, Linear Algebra, Multivariable Calculus, Discrete Math, Differential Equations, Number Theory, Applied Statistics

## EXPERIENCE

### Mastercard, Software Engineer Intern, Remote

June 2021 - Current

- Commercial Solutions department within Operations & Technology at Mastercard, at the Arlington, VA office

### Dive Chat, Part-Time Software Engineer, Austin, TX

May 2020 - Current

- Built mobile and web interface of channel-based messaging app with React Native, Expo, ReactJS, and Redux
- Constructed Firebase data security rules, improved query speeds by 45% through caching, memoization, debouncing, and database optimizations
- Implemented heavy back-end for messaging interface, performance improvements, caching and syncing of persisted user data
- Wrote cloud functions for push notifications, message reactions, event reminders, event updates with NodeJS, Firebase, and Google Cloud

### Big and Mini, Software Engineer Intern, Austin, TX

June 2020 - Aug. 2020

- Built a web client dashboard with NextJS and HTML/CSS and implemented back-end functionality with AWS
- Developed and incorporated a video-calling platform using Jitsi to facilitate online meetings between users
- Created automated email reminder systems for over 2400 users in 13 countries using NodeJS functions deployed to AWS Lambda
- Constructed an API in Java to automatically match users based on available times, interests, and preferences from DynamoDB

## ACTIVITIES

### UT IEEE Computer Society, Software Developer & Member

Sept. 2020 - Dec. 2020

- Built UT Ticket Exchange, a centralized web platform for UT affiliates to buy/sell tickets for sporting events
- Leveraged the MEAN Stack (MongoDB, ExpressJS, Angular, NodeJS) to develop front-end and back-end of application
- Worked with 15 students in an Agile environment to develop under a microservices architecture model

### Texas Convergent, Build Team Technical Lead

Feb. 2020 - May 2020

- Developed a budgeting product that handles user finances and tracks item returns with React Native and Parse REST API
- Presented tech prototype and pitched the product to over 200 company recruiters, engineers, and school alumni

## PROJECTS

### TXPost (Decentralized Blockchain System)

- Developed a decentralized content sharing system with a peer-to-peer network using blockchain
- Implemented APIs for distributed consensus, SHA-256 block hashing, RSA digital signatures, and a Proof-of-Work mining algorithm
- Created web application with mining, syncing, and content posting functionalities to interface with blockchain

### Omelia (Chrome Extension)

- Created a Chrome extension using JavaScript and HTML/CSS that modifies a Google spreadsheet using voice commands recorded by user
- Implemented real-time speech to text translation and utilized Google Cloud NLP, GloVe, NLTK and Scikit-learn for text processing
- Built Python RESTful API in Flask deployed to Google Cloud Functions that uses the Google Sheets API to interact with spreadsheets

### Red Meter (Natural Language Processing)

- Built webpage with Flask that uses NLP to provide accurate insights on the outcome of the 2020 Election
- Trained a Keras model with 1.6 million tweets and Word2Vec embeddings in Tensorflow to detect polarity in texts
- Achieved 79% accuracy in predicting text sentiments using a trained Recurrent Neural Network model and Python libraries (Numpy, Pandas etc.)

## SKILLS

**PROGRAMMING LANGUAGES:** Java, Python, JavaScript, C, C++, HTML/CSS, TypeScript, Octave

**FRAMEWORKS/TOOLS:** ReactJS, NodeJS, Angular, Flask, React Native, Tensorflow, Keras, Scikit-learn, NLTK, AWS, Google Cloud, MongoDB

**INTERESTS:** Full-Stack Engineering, Artificial Intelligence, Data Science, Cloud Computing, Cricket, Tennis, Music, Traveling

**WORK AUTHORIZATION:** Eligible to work in the US with no restrictions