# MAYANK DARUKA

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# **EDUCATION**

#### The University of Texas at Austin

May 2023

Bachelor of Science in Computer Science and Mathematics

GPA: 3.97

Relevant Coursework: Data Structures, Computer Architecture, Operating Systems, Competitive Programming, Linear Algebra, Multivariable Calculus, Discrete Mathematics, Differential Equations

## **EXPERIENCE**

#### Dive Chat, Software Development Intern, Austin, TX

May 2020 - Aug. 2020

- Built mobile interface of channel-based messaging app for college students with React Native, Expo, Redux, NodeJS, and Google Cloud
- Constructed Firebase data security rules, improved query speeds by 30% through caching and database optimizations
- Implemented heavy backend for group and event creation, deep universal linking, asset bundling, and conversation encryption
- Mobile application received around 5000 downloads within the first week of product launch

#### Big and Mini, Full-Stack Software Engineer, Austin, TX

June 2020 - Aug. 2020

- Built a web video-calling platform using Jitsi, NextJS, and HTML/CSS that facilitates interaction between the youth and older generations to mitigate social isolation and loneliness amongst older adults
- Created automated email reminder systems for over 2400 users using NodeJS functions deployed to AWS Lambda
- Constructed an API in Java to match users based on available times, interests, and personal preferences from AWS DynamoDB

# **ACTIVITIES**

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

Sept. 2020 - Current

- Built UT Ticket Exchange, a centralized web platform for UT affiliates to buy/sell tickets for sporting events
- Leveraged the MEAN Stack (MongoDB, ExpressJS, AngularJS, NodeJS) to develop frontend and backend 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 application that handles user finances and maintains a system for tracking 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**

#### Laundry Line (iOS and Android Application)

- Developed a mobile application using React Native and Firebase that solves laundry-related issues in UT dormitories
- Extensive UI/UX that displays real-time statuses of laundry machines and allows for individualized texting amongst students on each floor

#### Red Meter (Natural Language Processing)

- Built webpage with Flask that uses NLP to provide accurate insights on the outcome of the 2020 Election
- Performed feature extraction on real-time tweets about Trump and Biden using several Python libraries (NumPy, Pandas etc.)
- 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 trained Recurrent Neural Network model

#### Kinetic Keys (Computer Real-Time Vision)

- Created interface with ReactJS that uses a webcam to detect English alphabet letters in human poses to spell out words
- Incorporated a Tensorflow ML model that was trained with 5000+ images to recognize 9 unique human poses
- Showcased product and presented demo to company recruiters/engineers at Texas Convergent Side Project Expo 2020

## SKILLS & OTHERS

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

FRAMEWORKS/TOOLS: ReactJS, NodeJS, AngularJS, Flask, React Native, Flutter, Tensorflow, Keras, Firebase, MongoDB, AWS

INTERESTS: Cricket, Tennis, Traveling, Movies, Music

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