Mayank Daruka

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EDUCATION

The University of Texas at Austin, Austin, TX   **May 2023**
- **Bachelor of Science in Computer Science** and **Bachelor of Science in Mathematics**
- **GPA:** 3.93
- **Interests:** Web/Mobile App Development, Deep Learning, Natural Language Processing, Data Science
- **Relevant Coursework:** Data Structures, Discrete Math, Multivariable Calculus, Computer Organization and Architecture, Introduction to Probability and Statistics, Linear Algebra

Technical Skills: Microsoft Office. Java, Python (NLTK, Tensorflow, Keras, NumPy, Scikit-Learn, Flask), C, JavaScript (MERN Stack – MongoDB, Express, ReactJS, NodeJS, React Native), HTML/CSS, x86-64 Assembly, Git, Linux.

ACADEMIC PROJECTS

LaundryLine – Developer/Creator
- Developed a mobile application that solves issues UT students face with laundry in dorms through crowdsourcing – users can update/check the real-time status of washers and dryers on their residence floor to prevent unnecessary trips to the laundry room
- Mobile application interface compatible with both iOS and Android platforms; release scheduled for Fall 2020/Spring 2021
- Front-end: React Native, cross-platform UI component toolkits (NativeBase) making for an extensive user interface
- Back-end: User authentication and email verification with Firebase, storage of user and laundry machine states data in cloud-based database Firestore, management of data flow relied on by server and client sides using Redux, real-time customized group chatting and texting individualized for each residency floor through Firebase's Realtime Database

Kinetic Keys (PoseNet Real-Time Vision) – Developer/Creator
- Created and trained a Machine Learning model with approximately 4500 images to recognize human alphabet-like postures
- Worked with ReactJS, employed results from the PoseNet model, and utilized Material UI Library API components to design an interactive browser-based interface (kinetickeys.netlify.com) where one can spell out words by creating letters with their body
- Showcased project and presented demo to company recruiters and engineers at the Texas Convergent Side Project Expo 2020

Red Meter – Developer/Creator
- Developed a web application with Flask to display sentiments of Dallas/FW, Houston, San Antonio, and Austin about Trump
- Used the Tweepy API to stream tweets regarding Trump in real-time to a database; used SQLite3 to manage CRUD operations
- Trained a Keras RNN model with 1.6 million tweets and Word2Vec embeddings in Tensorflow to detect polarity in texts
- Performed sentiment analysis on real-time data with the ML model and updated statuses of cities displayed by the Mapbox API

Scrilla (Texas Convergent Finance Tech Build Team) – Developer/Creator
- Designed a mobile budgeting application using Expo, React Native, and Back4App Parse REST API that oversees users' finances, displays their transaction records, and maintains a system to handle returning bought items before the return deadline
- Back-End: User authentication and email verification (automated emails) through Parse Server's Users API, JSON encoded data storage in real-time cloud-based Back4App database

Daily News Bot – Developer/Creator
- Developed a Slack bot in Python that provides me with daily news about the world's current affairs in real time
- Used the BeautifulSoup library to scrape data from various news websites, and the Slack RTM API for Real Time Messaging

LEADERSHIP, ACTIVITIES, AND EXPERIENCE

Texas Convergent – UT Austin, *Build Team Developer*   **Feb 2020 – Present**
- Worked on a semester-long project as part of the Personal Finance Tech Build Team to design a budgeting product
- Learned to build and design tech prototypes, business proposals, and pitches under the guidance of experienced leads

Association for Computing Machinery – UT Austin*, Member*   **Sep 2019 – Present**
- Strengthened my ability to work with Linux, Windows Subsystem for Linux, terminal basics, Git and Version Control Systems

S.A.M. Singapore Math*, Math Tutor*   **Jun 2018 – Sep 2018**
- Tutored Mathematics to students up till 8th grade using various approaches used by schools in Singapore. Managed the day-to-day activities of the center and handled the technology-related tasks of the workplace.

OTHERS

Languages: English, Hindi, Spanish (Elementary Proficiency)
Hackathons Attended: HackTX 2019, LeapHacks 2020
Honors and Awards: National AP Scholar; National Merit Commended Scholar; Siemens Foundation Merit Scholar
Training/Certifications: AWS Machine Learning