# Sanjana Yadav

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## EDUCATION

**University of Texas at Austin (Turing Scholars Honors Program)**　　　　　　　　　　**August 2019-Current**

*B.S. in Computer Science - GPA: 3.62*

**Relevant Courses**(H = Honors, * = current):

Operating Systems* (H), Computer Architecture (H), Data Structures and Algorithms (H), Discrete Math (H), Competitive Programming*, Robot Learning, Probability, Multivariable Calculus, Intro to Algorithms Part 1 (Coursera), Intro to Algorithms Part 2* (Coursera)

## EXPERIENCE

**TurnUp Activism**　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　**Remote**

*Software Engineer Intern*　　　　　　　　　　　　　　　　　　　　　　　*June 2020 - August 2020*

- Assisted in setting up mock data for Firebase Emulator to test new website version
- Team Lead of Firebase backend team - Reviewed pull requests, organized assignments, planned meetings

## PROJECTS

**Spotify Extension**　　　　　　　　　　　　　　　　　　　　　　　　　　　*NLP, Full Stack*

- Built a full stack application that analyzes an album based on its audio with the Spotify API and lyrics with **Natural Language Processing** and sentiment analysis that determines the level of positivity/negativity and 8 emotions in the album
- **Technologies Used:** Python (Django, nltk), HTML/CSS

**Unix Shell**　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Systems*

- Created command-line shell that executes programs on a team of 4
- I added features including redirected input/output, command history, and tab completion
- **Technologies Used:** C, System calls

**Webcrawler**　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Full Stack*

- Built a web crawler and search engine that handles complex logical queries using Shunting Yard Algorithm
- Developed algorithm that crawled 9000+ webpages in seconds and indexed them in HashMap saved to disc in under 16 mb
- **Technologies Used:** Java, JUnit Testing, HTML

**Secure Your Flight**　　　　　　　　　　　　　　　　　　　　　　　　　　　*Full Stack*

- Constructed a web application in 25 hours on a team of 4 that used American Airlines and Google Maps API and crowd-sourced data on security wait times to calculate when to leave for the airport
- I created and integrated SQL database with back-end of application
- **Technologies Used:** SQLite, APIs, Python/Flask, HTML/CSS

**Fun Compiler**　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Systems*

- Developed compiler to change FUN programming language to x-86 assembly language and create an executable file
- Handles conditionals, loops, and function calls
- **Technologies Used:** C, x-86 Assembly Language

**Multicycled Pipelined Processor**　　　　　　　　　　　　　　　　　*Computer Architecture*

- Designed a multicycle processor in Verilog that utilized pipelining, forwarding, and flushing
- Added branch prediction to decrease average cycles per instructions
- **Technologies Used:** Verilog, GTKWave

## KEY SKILLS

- **Proficient** Java, Python (Django, Flask, nltk), C, SQL, Verilog, HTML/CSS/Javascript, React, Firebase
- **Exposure** React Native, x-86 Assembly, C++
- **Technologies** Git, Terminal, JUnit, Mocha/Chai, GTKWave

## AWARDS AND ACHIEVEMENTS

- 2019 - "Secure Your Flight" - Winner of American Airlines Challenge at HackTX
- 2019 - UT College of Natural Sciences Scholarship
- 2019 - Groce Family Turing Scholarship
- 2019 - NCWIT Award for Aspirations in Computing - Dallas