

Jack Asaad

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EDUCATION

The University of Texas at Dallas

Expected Graduation: May, 2023

BS Software Engineering

Ricardson, TX

Notable Coursework: Machine Learning, Software Architecture and Design, Operating Systems Concepts, Database Systems and Design, Computer Networking, Data Structures and Algorithms, Systems Programming in UNIX

Programming Languages: C/C++, Java, HTML/CSS, Python, C#, R, PostgreSQL, MySQL, JavaScript, Typescript

Technologies: Django, Pandas, NumPy, React, Git, NLTK, Tensorflow, AWS, JUnit

Techniques: Unit Testing, Requirements Engineering and Trawling, Android Development, Architectural Design, Figma, Agile Development

WORK EXPERIENCE

CPI-Satcom

Jan. 2023 – May 2023

Student Volunteer

Plano, TX

- Deciphered a 10 year old codebase and began remodeling the implementation of an Android application.
- Created dozens of new architectural, requirements-based and wireframe documents to renovate the project, redesigning the application to better suit current business needs.
- Collaborated with five other students to deliver an updated application optimized for modern use, improving API call times by 20% and improving UI to better organize product delivery on the client facing application.
- Redesigned application through the use of UI templates for a more orderly construction and presentation of business logic, with the aim of improving sales and application user experience dramatically.

PERSONAL PROJECTS

Machine Learning Portfolio (Aug. 2022 - Jan. 2023)

- Arranged a github repository over the course of a semester illustrating use of Machine Learning concepts.
- Constructed various linear models for regression, classification, and clustering in R and Python. Eventually rebuilding those models from scratch in C++ to improve performance by approximately 20%.
- Ventured into image classification, creating a transfer learning model with Tensorflow to classify six different natural environments with approximately 85% accuracy.

Natural Language Processing Portfolio (Jan. 2023 - Apr. 2023)

- Developed a web-crawler in Python using BeautifulSoup to build a custom corpus which was manually translated to an SQL database.
- Engineered a chat-bot from scratch that utilized the custom SQL knowledge base to perform simple calculations and maintained separate user models for different users.
- Built a language model based on N-grams. Unigrams and bi-grams were created and trained on lines of English, French and Italian text and were tasked to detect one of the three languages. Model showed 97% accuracy.
- Implemented a word guessing game using the NLTK library to tokenize, tag and lemmatize a raw text file.

Calí (Mar. 2023 - Present)

- Designing a web-extension with the goal of allowing users to make updates to their Google Calendar through voice commands.
- Formulating a dataflow where speech is parsed by the Web Speech API and key terms are used to create calendar events and edits using the Google Calendar API.