

Nicholas Baker

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EDUCATION

University of Texas at Dallas, Richardson, TX

Bachelor and Master of Science in Computer Science

August 2019 - May 2023 (expected)

- GPA: 4.0/4.0

Collin College, Plano, TX

September 2018 - May 2019

- GPA: 4.0/4.0

SKILLS

Languages/Tools: Python, C++, Java, HTML/CSS, Javascript, Eclipse, Visual Studio Code

Relevant Course Material: Data Structures and Algorithmic Analysis, Computer Architecture, Automata Theory, C/C++ in Unix Systems, Org. of Programming Languages

PROJECTS

Discord Local Media Bot (Python)

May 2020

- Created using the *discord.py* (ver 1.4.0a) API wrapper for Discord
- A bot that allows audio files from its host machine to be directly played into a voice call, or enqueued into a playlist that is manageable through common media player commands

Down to Dine, Yelp's Fusion API Challenge (**HTML, CSS, Javascript**)

February 2020

- A Website designed to give quick access to nearby dining options and provide restaurant info using HTML5 Geolocation and Yelp's Fusion API

News Unchained, HackUTD VI (**Javascript**)

November 2019

- Placed **1st** for the challenge sponsored by Cognizant
- Team collaboration to develop a chrome extension which filters bias from articles
- Utilized HTML web scraping with the Google Natural Language Processing API

Waveform Audio File Analyzer (Python)

April - June 2019

- Applies the Discrete Fourier Transform (DFT) in order to identify notes/pitches from PCM data in audio files
- Built on the Tk GUI toolkit with Python's Tkinter package

Neural Network Simulation (Java, Python)

July - August 2019

- Array-based neural network implemented in both Java and Python.
- **Java** Iteration - Networks learn to pilot physics bodies while avoiding obstacles
- **Python** Iteration - Networks analyze patterns through a backpropagation algorithm

Game Development Project (Java)

January - May 2019

- Developed a 2D game from scratch in a team where I created designs for user-input handling, in-game menus, and a stack-based implementation of a state machine

LEADERSHIP EXPERIENCE

Assistant Yoyo Instructor, University of Arlington, TX

June 2016 - 2019

- Taught Chinese Yoyo as an assistant at a youth camp
- Collaborated with colleagues to create a performance and direct scheduled practices

HOBBIES

Chinese Yoyo, Violin, UTD Codeburners Club (Competitive Coding), Gaming, Anime