

# Nicholas Baker

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## EDUCATION

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**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

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

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

## PROJECTS

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**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

## WORK EXPERIENCE

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**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

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