Jacob Maxson

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Education

Ohio State University Expected Graduation: May 2022
Major: BS Computer Science & Engineering GPA: 3.9
Minor: Business Dean's List

Technical Skills

Programming: Java, C, C++, C#, Python
Web Development: HTML, CSS, JavaScript, jQuery, ReactJS
Miscellaneous: Xamarin.Forms, Unity, Linux, ASP.NET Core, SQL, MATLAB, Azure

Projects

Utility Pole Evaluator: **November 2020**

- Hackathon project worked on with a team of 4, which coded an API in Python to evaluate the safety of utility poles in Columbus. Entered and won AEP's hackathon challenge.
- Used metadata and image recognition software to calculate how much a pole was leaning and displayed this info in real time using the Google Maps API. Created an air drone AI to automatically travel from pole to pole and simulated it using Microsoft AirSim.

Stock Market Evaluator: **June 2021—Present**

- Predicted future stock prices by analyzing over 10 years of historical stock data from over 500 companies.
- Utilized dynamic neural network structures and data analysis techniques to yield an average ROI of 200% over the market average in a 5-year span. Custom portfolios can be imported and managed automatically.

Chess AI: **November 2019**

- Hackathon project worked on in a team of 4. AI is estimated to play at an Elo level of a chess Master rating.
- Generated tree of possible game states, using an alpha beta search algorithm and iterative deepening to traverse the tree. Tabulation hashing and pruning algorithms increased average performance by over 100x.

March Madness Predictor: **February 2021—March 2021**

- Retrieved historical statistics on college basketball teams over the past 20 years and performed data analysis with neural networks to predict a march madness bracket.
- Model was tested on both previous and future tournament games, yielding an 80% accuracy on predictions.

YouTube Playlist Randomizer: **June 2020—July 2020**

- Created a website to conveniently listen to and shuffle through a YouTube music playlist.
- Developed a back-end API that generates and parses a playlist source page to retrieve a list of videos before randomizing them. Multiple playlists can be appended and mixed together, even if they come from different users.

Personal Website: **October 2019—November 2019**

- Designed a mobile-friendly personal website that highlights soft skills such as problem-solving and adaptability, as well as personal projects featuring topics such as data analysis and machine learning.

Other Experience

Shadowing **May 2018**

- Shadowed a Lead Applications Developer at Kent State University.
- Gained 30+ hours of field research experience focused on web development.