

## EMPLOYMENT

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**.NET Developer** **Hamilton Manufacturing Corp.** **August 2022 – Present**

- Built REST APIs for Hosted Solutions.

**Data Scientist** **Pitcher List** **December 2019 – Present**

**xStats** ([gitlab.com/jefnic23/xstats](https://gitlab.com/jefnic23/xstats))

- Built an algorithm using SciPy KDTree to predict batted ball outcomes based on results of similar hits.
- Wrote functions that calculate sabermetric expected statistics based on predicted outcomes.
- Worked with the database team to implement xStats on the Pitcher List player pages.

## SOFTWARE PROJECTS

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**Zell Baseball** ([zell-baseball.herokuapp.com](https://zell-baseball.herokuapp.com))

- Built a website with Flask that determines which baseball games to bet on.
- Wrote server-side Python functions to interface with the MLB Stats and FanDuel APIs.
- Client-side function periodically calls the FanDuel API and connects to the server via websockets to update money lines in real time.
- Predicted scores are generated by passing data from the MLB Stats API to an algorithm that creates run values for each factor and returns the grand total.

**Tracey Nicholas Art** ([traceynicholas.com](https://traceynicholas.com))

- Built an ecommerce website with Flask geared toward artists.
- Painting details are stored in a PostgreSQL database with a unique identifier that is used to retrieve images from an AWS S3 bucket.
- Purchases are handled through the PayPal Python SDK.
- Built a custom CRUD page for site administrators to add product listings.

**Spot The Plane** ([spottheplane.net](https://spottheplane.net))

- Game where users are given a picture of an aircraft and guess the model from four choices.
- Aircraft IDs and models are stored in a PostgreSQL database from which ten are selected randomly once a day with a seed that is constant for all users.
- Server-side Python function calls the Planespotters API and sends aircraft info to the React front end.

## EDUCATION

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**Bowling Green, OH** **Bowling Green State University** **Sept 2014 – May 2016**

- **M.M.** in Composition (GPA: 3.823)

**Ypsilanti, MI** **Eastern Michigan University** **Sept 2007 – Dec 2013**

- **B.Sc.** in Music (GPA: 3.75, Cum Laude)

## SKILLS

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- Python (Flask, Jinja2, Socket.IO, SQLAlchemy, pandas, NumPy, SciPy, scikit-learn, matplotlib, seaborn)
- ASP.NET Core; C#; Entity Framework; SQL; JavaScript; React; HTML/CSS; AWS; Git; GNU Scheme