

# Joseph Hughes

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[LinkedIn](#)

[GitHub](#)

[Portfolio Website](#)

## Personal Projects

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### Automated Twitter Account - Creator

- Leveraged **Python** in conjunction with the **Twitter API** to establish and manage an automated Twitter account.
- Daily dissemination of weather updates and enthusiastic game-day wishes to sports teams.
- Can be found at [@SpartyStatue](#), Github [here](#).

### Skills At a Glance:

Python  
Twitter API  
Weather API

### Spotify Location-Based Recommendations - Co-Creator

- Developed a location-based music upload feature, enabling users to associate music with specific geographical locations.
- Engineered a recommendation system that suggests songs and playlists based on proximity to user-uploaded content.
- Utilized **Python** and **Streamlit** to architect an intuitive user interface.
- Executed **SQLite** database queries tailored to user location data, enhancing the app's personalized music recommendations.
- GitHub link [here](#).

### Skills At A Glance:

Python  
Streamlit  
SQLite

### AI Snake - Creator

- Developed an AI agent proficient in playing the classic game of Snake, harnessing the power of **Python** and **PyTorch**.
- Successfully applied Q-Learning techniques, achieving an impressive high score of 94 within a limited span of 2,000 trials
- GitHub link [here](#)

### Skills At A Glance:

Python  
PyTorch

### Calculus Ninja Game - Co-Creator

- Designed and crafted an interactive video game leveraging **Javascript** and **p5.js**
- Engineered a comprehensive game engine featuring advanced collision detection and dynamic enemy tracking mechanics
- GitHub link [here](#)

### Skills At A Glance:

Javascript  
p5.js

## Education

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### Michigan State University

*Bachelor of Science in Computer Science*

### East Lansing

*August 2022 - May 2025*

- GPA: 4.0
- Relevant Coursework: Discrete Structures(4.0), Data Structures and Algorithms(curr.), Computer Organizations and Architecture(curr.), Honors Linear Algebra(curr.)

### Technical Skills:

Python(2yrs), C++(1yr), Dart(1yr), Flutter(1yr), SQLite, Javascript(1yr), Android Studio, Java(1yr), Git, Blender

## Leadership Experience

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### Business Professionals of America(CTSO) - President

### Gibraltar, MI

*Oct. 2019 - June 2022*

- Achieved a 200% membership growth during my three-year tenure as President.
- Spearheaded and directed peer student initiatives, orchestrated weekly meetings, and optimized resource management.
- Created a dedicated website that gave students access to competition preparation materials and resources.